MWP

Chapter 01 Introduction

Ballinlee Wind Farm

Ballinlee Green Energy Ltd.

September 2025

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1. Introduction

This Environmental Impact Assessment Report (EIAR) relates to a proposed wind energy project in Co. Limerick, named Ballinlee Wind Farm. Planning Permission is being sought by Ballinlee Green Energy Ltd. (the Applicant), from An Coimisiún Pleanála (the competent planning authority) for the proposed development.

A full description of the proposed development, development lands and all associated project elements is provided in Volume II, Chapter 02 Description of the Proposed Development of this EIAR.

Malachy Walsh and Partners (MWP) Engineering and Environmental Consultants have been engaged by the Applicant to prepare an EIAR to accompany the planning application. This EIAR has been compiled in accordance with current legislation and best practice guidance and consists of a systematic analysis and assessment of the potential effects of the proposed development on the receiving environment. Any references to legislation throughout this EIAR includes any amendments thereto.

The intended purpose of this EIAR is to:

- Inform decision makers and the public of any potential environmental effects and impacts associated with the implementation of the proposed development;
- Determine whether any identified impacts and associated effects could be significant; and
- Suggest mitigation measures for potential impacts where feasible.

This Chapter sets out the purpose and scope of this EIAR, the report structure, assessment topics, assessment authors and contributors, and assumptions which underlie this EIAR. It introduces the proposed development and outlines the site location, key elements of the proposed development and details the consultation undertaken with relevant stakeholders.

1.1 The Applicant

Ballinlee Green Energy Ltd. is a subsidiary of Greensource Sustainable Development Limited(Greensource).

Greensource is an innovative Irish renewable energy company based in Adare, Co. Limerick that specialises in the development of renewable energy projects, working with communities from pre-planning to operation, and creating long-lasting local partnerships. Greensource has over ten years development and operational experience. Greensource has a highly skilled and experienced team who are committed to developing projects with successful outcomes for all stakeholders. Working with integrity and care for the local environment, the team has a strong track record, having successfully completed wind energy and other renewable projects in the west of Ireland.

The company has developed and installed a number of wind farm projects in County Limerick including Carrons Wind Farm located south of Shanagolden and Kilmeedy Wind Farm located east of Newcastle West.

1.2 The Project

The planning application will be made by *Ballinlee Green Energy Ltd.* to An Coimisiún Pleanála (ACP), in respect of the proposed wind energy project as set out below:

> *Application under section 37E of the Planning and Development Act 2000, as amended, for the Ballinlee Wind Farm, including 17 wind turbines, substation, met mast, access tracks, borrow pits, deposition areas, grid connection, and all ancillary works.*

The proposed development will comprise of 17 No. wind turbines, 16 No. with a tip height of 160m and 1 No. (T6) with a tip height of 150m, associated infrastructure, a grid connection, with an expected Maximum Export

Capacity (MEC) in excess 76 Megawatts (MW). The planning application area spans a total of approximately 255.12ha and includes the wind farm site, the grid route along the public road corridor between the proposed on-site substation and the existing 220/110kV Killonan substation, and an area in the townland of Tullovin required for accommodation works to allow for turbine delivery. The Applicant is seeking a 10-year permission to construct the development, which, when commissioned, would have an operational life of no less than 35 years from commissioning. MWP have been commissioned to prepare an Environmental Impact Assessment Report (EIAR) and Planning Application for this proposed wind energy project.

The assessment will include the construction and operation of a wind farm and all associated infrastructure including a substation and grid connection. Further details are provided in Volume II, Chapter 02 Description of the Proposed Development of this EIAR.

1.3 Legislative Context

1.3.1 Strategic Infrastructure Development

In relation to projects that may be deemed to be Strategic Infrastructure Development (SID), Part 1 of the Seventh Schedule of the Planning and Development Act 2000 (Act), as amended, specifies, inter alia, the following classes of development:

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

Once a SID determination request is made by a prospective applicant, An Coimisiún Pleanála previously known as An Bord Pleanála must satisfy itself that the development meets one or more of the conditions set out in section 37A (2) of the Planning and Development Act 2000 as amended, namely:

"(a) the development would be of strategic economic or social importance to the State or the region in which it would be situate;

(b) the development would contribute substantially to the fulfilment of any of the objectives in the National Spatial Strategy or in any regional spatial and economic strategy in force in respect of the area or areas in which it would be situate; and

(c) the development would have a significant effect on the area of more than one planning authority."

1.3.2 RED III Directive

The Renewable Energy Directive (2018/2001/EU) entered into force in December 2018, as part of the Clean Energy for all Europeans package, aimed at maintaining the EU's status as a global leader in renewables and, more broadly, helping it to meet its emissions reduction commitments under the Paris Agreement.

It established a new binding target for the EU for 2030 of at least 32% renewable energy, with a clause for a possible upwards revision by 2030. This target is a continuation of the 20% target for 2020. In order to help EU countries deliver on this target, the directive introduced new measures for various sectors of the economy, particularly on heating and cooling and transport, where progress has been slower (for example, an increased 14% target for the share of renewable fuels in transport by 2030).

It also included new provisions to allow citizens to play an active role in the development of renewables by enabling renewable energy communities and self-consumption of renewable energy and established better criteria to ensure bioenergy's sustainability.

The Renewable Energy Directive was revised again in 2023. The third revision, which is referred to as "RED III" obliges Member States to collectively ensure the share of renewable energy in the European Union's gross final energy consumption is at least 42.5% by 2030, with an additional 2.5% indicative top-up to allow the target of 45% to be achieved.

RED III also places the presumption of overriding public interest for renewable energy projects (Imperative Reasons for Overriding Public Interest - IROPI) on a permanent footing. Article 16f of the Directive states that Member States must ensure that in the permit-granting procedure, the planning, construction and operation of renewable energy plants, their connection to the grid, the grid itself and storage assets are presumed to be IROPI.

Most notably, RED III obliges Member States to speed up and simplify renewable infrastructure permitting procedures by ensuring that procedures for granting permits to build, repower and operate energy assets do not exceed certain timelines, depending on the asset type, size and location. Article 16b(1) provides that the permit-granting procedure for onshore renewable energy projects outside renewables acceleration areas must not exceed two years. RED III has been transposed by the European Union (Planning and Development) (Renewable Energy) Regulations 2025 with the majority of the provisions coming into effect on 7th August 2025.

1.3.3 Environmental Impact Assessment

Environmental Impact Assessment (EIA) is the process of examining any likely significant environmental effects of a proposed development – from consideration of environmental aspects at design stage, through consultation and preparation of an Environmental Impact Assessment Report (EIAR), carrying out of consultations, examination of the EIAR and other information by a competent authority and the subsequent reasoned conclusion on the significant effects on the environment of the proposed development, and the decision as to whether the development should be permitted to proceed. An EIAR is a report or statement of the effects, if any, which the proposed development, if carried out, would have on the environment. It is prepared by a developer/planning applicant to inform the EIA process.

EIA in Ireland is governed by EIA Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment as amended by EIA Directive 2014/52/EU. The main goal of the EIA Directive is to ensure that projects which have the potential to have significant effects on the environment are subject to an assessment of their likely impacts, before consent is given by the relevant competent authority.

The EU EIA Directives have been transposed into Irish legislation primarily under the Planning and Development Act 2000, as amended, and subsequent regulations, collectively cited as the Planning and Development Regulations 2001, as amended.

The proposed wind energy project, is of a prescribed class of development to which the EIA Directive applies and falls within the list of project types requiring an EIA as set out under 3(i) of Part 2 of the 5th Schedule of the Planning and Development Regulations 2001 (as amended) which states:

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

The methodology outlined in the EPA Guidance Document *Guidelines on the Information to be Contained in Environmental Impact Reports* (EPA, 2022), which is based on the 2014 EIA Directive, has been applied in the preparation of this EIAR. In addition, relevant environmental and planning considerations for proposed wind farm developments, as set out in the *Limerick Development Plan (2022–2028)*, the *Regional Spatial and Economic Strategy (RSES) for the Southern Region*, and the *Mid-West Regional Planning Guidelines (2010–2022)*, have been reviewed and incorporated where applicable.

Furthermore, this EIAR has had regard to key sectoral guidance, including the Wind Energy Development Guidelines (2006) and the Draft Revised Wind Energy Development Guidelines (2019), as well as the Guidelines for Planning Authorities and An Bord Pleanála on Carrying Out Environmental Impact Assessment (August 2018).

1.4 EIA Methodology

The EIA process begins with Screening to determine whether an EIA is required. This is then followed by Scoping and Consultation to identify the specialist studies required in the EIAR, where the need for an EIA has been 'screened in'. Where effects are considered to be unacceptable, they are avoided or mitigated at the design stage.

1.4.1 Screening

The first step in the EIA process is Screening which determines whether an EIA is required (EPA, 2022) and usually commences at the project design stage. The EIA Directive lists those projects that require a mandatory EIA (Annex I) and those projects for which a screening assessment must be undertaken to determine if they are likely to result in significant effects (Annex II).

Schedule 5 of the Planning and Development Regulations 2001 (as amended) transposes Annex I and Annex II of the EIA Directive into Irish law under Parts 1 and 2 of the Schedule, respectively. In Ireland, EIA is mandatory for development of a class set out in Schedule 5 of the Planning and Development Regulations 2001 (as amended), which exceeds a limit, quantity or threshold set for that class of development.

The proposed development is an application for a wind energy development comprising of seventeen (17) wind turbines with an expected output in excess of 76MW of electricity.

Schedule 5 (Part 2) Sub-section 3(i) of the Planning & Development Regulations 2001 as amended sets a mandatory threshold for 'Installations for the harnessing of wind power for energy production with more than 5 turbines or having a total output greater than 5 megawatts'.

Therefore, the proposed development is over the mandatory threshold for EIA, therefore an EIAR is required.

1.4.2 Scoping

As it has been determined that an EIA is required, the next step is to 'scope' the content of the EIAR. Scoping considers the potential for likely significant effects throughout different phases of a proposed project to determine "the content and extent of the matters which should be covered in the environmental information to be submitted in the EIAR" (EPA, 2022). The determination as to the significance of an effect will be made, where practicable, in accordance with the terminology outlined in Table 3.4 of the 2022 EPA *Guidelines on the Information to be contained in Environmental Impact Reports*, as shown in Table 1-1.

Table 1-1: EPA Guidelines Description of Effects

	Term	Description
Quality of Effects	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 /adverse	A change which reduces the quality of the environment
	Imperceptible	An effect capable of measurement but without significant consequence

	Term	Description
Significance of Effects	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 that is consistent with existing and emerging baseline trends
	Significant	An effect which, by its character, magnitude duration or intensity alters a sensitive aspect of the environment
	Very Significant	An effect which, by its character, magnitude duration or intensity alters most of a sensitive aspect of the environment
	Profound	An impact which obliterates sensitive characteristics
Duration of Effect	Momentary	Effects lasting from seconds to minutes
	Brief	Effects lasting less than a day
	Temporary	Effects lasting less than a year
	Short-term	Effects lasting one to seven years
	Medium-term	Effects lasting seven to fifteen years
	Long-term	Effects lasting fifteen to sixty years
	Permanent	Effects lasting over sixty years
	Reversible	Effects than can be undone e.g. through remediation or restoration
	Frequency	How often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)
Types of Effects	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 a larger, more significant effect.
	'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	The 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, (e.g. combination of SOx and NOx to produce smog).

As described in the 2022 EPA guidelines, "the potential for likely significant effects throughout different phases of the proposed project, are considered as far as possible at scoping stage – whether they would individually require consent or not. These include, as relevant, site investigations, construction, commissioning and operation to eventual decommissioning. Scoping also considers the range of alternatives to be considered in an EIAR" (EPA, 2022). The following was considered and consulted upon during the scoping phase:

- Preliminary environmental appraisal and project feasibility involving desk-top studies, review of available data for the general area of the site, site visits and field surveys;
- Pre-planning consultation with Limerick City and County Council;

- Limerick Development Plan 2022-2028;
- EPA '*Guidelines on Information to be contained in environmental impact assessment reports*', 2022;
- Project Type 33 [Installations for the harnessing of wind power for energy production (wind farms)] of EPA publications;
- Directive 2011/92/EU on the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU;
- Planning and Development Act, 2000, Part X, as amended, and Planning and Development Regulations, 2001, Part 10, as amended;
- IWEA (Irish Wind Energy Association), Best Practice Guidelines for The Irish Wind Energy Industry, 2012;
- The Department of Environment, Heritage and Local Government, Wind Farm Planning Guidelines 2006;
- Draft Revised Wind Energy Development Guidelines, DHPLG 2019;
- Scoping checklist set out in the European Commission's guidance document on EIA scoping (2017);
- Feedback from Statutory and Non-Statutory Consultations; and
- The experience of the Project Team.

The proposed development has been designed and assessed in compliance with the Department of Environment, Heritage and Local Government (DEHLG) Wind Energy Planning Guidelines published in 2006. The Draft Revised Guidelines published in 2019 contain changes to the guidelines for noise, setback distances, shadow flicker and community consultation/dividend provision, but these have not yet come into force. Whilst the revisions contained in the proposed new guidelines are considered in this report, the proposed development is designed and assessed against the current Guidelines in place. Further details are provided in the relevant chapters of this EIAR.

Table 1-2 outlines the specific topic areas that have been identified for assessment and inclusion in this EIAR and the chapters of this EIAR where these topics have been addressed.

Table 1-2: EIAR Topic Areas and Relevant Chapters

Topic Area	Assessments & Studies Included in the EIAR	EIAR Chapter
Population/Human Health	Residential amenity (noise, traffic, air quality, visual effects, shadow flicker)	Chapters 05, 10, 12, 13, 15 & 16
	Human Health	
Biodiversity & Ornithology	Habitat disruption	Chapters 06 & 07
	Protected flora and fauna	
	Invasive Species	
	Bat populations	
	Aquatic ecology	
	Avian populations	
Water	Impacts on surface water quality	Chapter 09
	Impacts on groundwater quality	
	Impacts on groundwater levels and local well supplies	
	Flood risk assessment including the potential for the proposed development to be affected by flooding and the potential for the development to increase flood risk elsewhere	
	Hydrological impacts on designated sites	
Land and Soils	Loss of land use	Chapter 08
	Excavated materials	
	Contamination of soil	
	Soil erosion	
Air Quality & Climate	Emissions to atmosphere & effect on air quality	Chapter 10 & 11
	Impact on climate	

Topic Area	Assessments & Studies Included in the EIAR	EIAR Chapter
	Vulnerability of the proposed development to climate change	
Landscape Visual Impact Assessment & Visuals	Visual impact of new structures	Chapter 12
	Impact on landscape character	
Noise and Vibration	Noise & vibration emissions	Chapter 13
Archaeology & Cultural Heritage	Impact to archaeological (known and unknown) & cultural heritage features.	Chapter 14
Material Assets	Roads, infrastructure, utilities, traffic.	Chapter 16 & 17
	Telecommunications, television, aviation	

1.4.3 Consultation

Extensive consultation was undertaken in relation to the proposed development, and comments from stakeholders and interested parties were requested and highly encouraged.

Consultation through door to door engagement, 1 to 1 meetings on request, community clinics, letters, email and telephone calls, with various statutory and non-statutory consultees has been maintained throughout.

1.4.3.1 Pre-Planning & EIAR Consultation Meetings

Consultation through meetings took place with the following parties:

- An Coimisiúin Pleanála (ACP)
- Limerick City and County Council - Planning Department
- Limerick City and County Council - Roads Department

An Coimisiún Pleanála (previously know as An Bord Pleanála)

Two pre-application meetings were held with An Coimisiún Pleanála (ACP). The first meeting was held on 25th October 2024, where the Applicant and MWP introduced the Ballinlee proposal. The grid connection, TDR and EIAR were discussed. ACP recommended a robust visual assessment.

A second meeting was held with ACP on 20th March 2025. At the second meeting, the discussion focused on a number of topics including biodiversity, grid connection route, along with the visual impact and the haul route for turbine delivery. The EIAR was also discussed and ACP advised when closing the pre-application consultation they would provide the list of prescribed bodies to whom the application documents should be forwarded on submission as per Section 37E (3)(c) of the Planning and Development Act (2000) as amended.

ACP confirmed the project would be a Strategic Infrastructure Development in correspondence dated the 27th of June 2025 (see EIAR Volume III, Appendix 1A) and advised on the list of prescribed bodies.

Local Authority - Limerick City and County Council

Ballinlee Green Energy and MWP held a pre-planning consultation meeting with the Limerick City and County Council (LCCC) Planning Department on the 13th November 2024. This was a preliminary meeting to introduce the proposed site and discuss its suitability for a wind farm project. At the meeting, it was confirmed that the location of the wind farm is within a “preferred area” for wind farm development; an area designated as suitable for wind energy development. The topics discussed included site access arrangements, turbine delivery route, potential for visual, ecological, archaeological and other environmental impacts and public consultation. Any issues raised were subsequently taken into account in the EIA process. A second consultation meeting was convened on the 3rd April 2025 with the roads department of the LCCC to give an update to the Local Authority on the civil aspects

of the project including the turbine delivery route, grid connection details and proposed road access details. Queries raised have been addressed in the relevant individual EIAR chapters.

Other Statutory and Non-Statutory Bodies

Written notifications setting out an overview of the development proposal were circulated in September 2024 to a number of stakeholders (both statutory and non-statutory consultees). The notifications invited feedback from the consultee on any key issues which they consider should be addressed and expressed that their input at this stage would be welcomed.

Consultees were informed that participation at this stage of the proposed development would not affect participation at a later stage in the planning process. A list of the organisations/groups consulted, a copy of the consultation documents and the responses received are provided in Stakeholder Consultation and Responses (EIAR **Volume III**, **Appendix 1B)**. Any queries raised were subsequently taken into account in the EIA process.

1.4.3.2 Community Engagement and Community Funding

If consented, the proposed Ballinlee Wind Farm will provide sustainable, low-carbon energy generation infrastructure to meet Ireland's growing demand. The benefits of the proposed development to the local community would include significant investment in local infrastructure and electrical systems and local job creation.

The public were consulted about the proposed development via online and offline mediums (see below and **Table 1-3**) commencing in 2025. Information was made available regarding the development company, the project elements, the community benefit fund, answers to frequently asked questions and contact details for further information requests and questions.

Ballinlee Green Energy will set up a community benefit fund, which will allocate funds from the wind farm to community groups in the area, should the wind farm be granted planning and be successful under the Government's RESS support programme. The fund will be calculated in accordance with the Renewable Electricity Support Scheme (RESS) Terms and Conditions at €2 per MWh of electricity produced by the project. This will be made available to the local community for the duration of the RESS (15 years). Based on efficiency and capacity of approximately 76 MW, the community benefit fund would amount to an average of €350,000 per annum. The actual fund will vary around this average from year to year, depending on the wind conditions of each year.

Up to 50% of the fund will be distributed to the near neighbours of the wind farm (within 1km). 40% of the fund will be allocated to not-for-profit community enterprises with an emphasis on low-carbon initiatives. The fund will be directed towards local clubs, societies and other initiatives. 10% of the fund is allocated to the external administration of the funding. It is envisaged that the communities nearest the proposed development will benefit most from the community fund. The community benefit fund will be managed by a fund committee comprised of local residents, the Developer and a fund administrator. Further details on the community engagement activities undertaken is available in the Community Engagement report (EIAR **Volume III**, **Appendix 1C**).

Ballinlee Green Energy Ltd. have undertaken a significant consultation process with the local community. In line with national policy, Ballinlee Green Energy Ltd. are committed to transparent and meaningful consultation. This facilitates more informed and active engagement with the proposed development. The key elements of this approach are outlined within the Community Report.

The Applicant commenced the public consultation for the proposed development in May 2025. **Table 1-3** summarises the community engagement activities undertaken. Further detail is provided in the Community Engagement Report (EIAR **Volume III**, **Appendix 1C**).

Table 1-3: Summary of Public Consultation

Date	Description of Activity
25 May 2025	Project Website Launched www.ballinleegreenenergy.ie with contact details for the community team
28 May 2025	Advertisement published in the Limerick Leader newspaper announcing the commencement of community engagement
30 May 2025	All local representatives, including TDs and Councillors, were contacted in relation to the project via phone and email
30 May 2025	Letter and Leaflet posted to households within 1km of the project
17th – 19th June 2025	Door-to-door visits to all residents within 1km of the project
June & July 2025	Additional in-person consultation at residences by request
6th August 2025	Invitation posted to all households within 1km of the project to the Community Consultation Clinics
26th - 27th August & 18th September 2025	Community Consultation Clinics held by appointment in the Deebert Hotel, Kilmallock, Co. Limerick.
Ongoing	Engagement with residents, community groups and local representatives via phone, email and in-person

A project website has been established in order to share information with the local community (https://www.ballinleegreenenergy.ie/). This website has continued to be updated regularly throughout the consultation process. Information presented on the project website includes:

- Project Information;
- Project Benefits;
- Key Questions;
- Company Information;
- Public Consultation Material;
- Project Updates; and
- Contact information.

1.4.4 Scoping for Potential Cumulative Effects with other existing and/or approved projects

The requirement to consider cumulative effects is outlined in EU and national legislation. The EU Directive on the assessment of the effects of certain public and private projects on the environment (EIA Directive) (2011/92/EU as amended by Directive 2014/52/EU) states:

> *'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',*

and,

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

A desk study was undertaken to identify other existing, proposed and approved projects with which significant cumulative effects could plausibly occur with the proposed Ballinlee Wind Farm. Publicly available information on existing developments and land uses, and/or proposed/approved developments (collated from planning

applications and relevant development plans) were considered for each of the environmental topics included in this EIAR, to identify whether there was any potential for cumulative/in combination effects with the proposed development. The key criteria for this scoping exercise included consideration of the types of potential impacts associated with the proposed development, common resources affected, receptors impacted, project timeframes (where available) and scale of development. The search focused on the townlands common to the development area and a radius area where there may be potential significant cumulative impacts due to traffic, utility demand, etc.

Searches within 3 key areas were undertaken namely:

1. Small (domestic, recreational and agricultural) development planning applications within 3km of the proposed project during the last 5 years (See Small Development Plannings (EIAR Volume III, Appendix 1D));
2. Wind Farm developments within 20km of the proposed project (See Table 1-4 and Table 1-5); and
3. Other energy developments within 20km of the proposed development site (See Table 1-6).

1.4.4.1 Small Planning Applications

Small scale planning applications for dwellings in proximity to the proposed development have been considered in the cumulative assessment. There is potential for some cumulative construction traffic and noise effects should these projects be constructed in parallel with the proposed wind farm. This is unlikely however, as potential construction works for the proposed project are not expected to be initiated until Q1 of 2028. Consequently, the potential for cumulative effects during construction will not occur.

Other small planning applications within a 3km radius around the development site (refer to Small Planning Developments, EIAR Volume III, Appendix 1D) relate to agricultural sheds and shed extensions, livestock facilities, and extensions to dwelling houses, domestic wastewater treatment systems, property entrances and roads, garages, demolitions, etc. The construction of these small-scale developments will likely be completed by the time construction of the proposed development would potentially begin (at the beginning of 2028).

Consequently, such dispersed small scale domestic and agricultural developments are not expected to have significant cumulative effects with the proposed development. These minor projects are either under the threshold for EIA or excluded from the list of projects requiring EIA and due to the nature and scale of these applications would not introduce complex or significant issues and are therefore not considered in the cumulative assessment.

1.4.4.2 Other Wind Farm Developments

Other existing wind energy developments in proximity to the proposed Ballinlee wind farm have potential to cause cumulative noise and visual effects in combination with the proposed development (refer to Table 1-4). The energy produced by the proposed development would positively cumulate with other wind farm developments in the region to advance in delivering local, regional, and national Green Energy targets. The nearest operational wind farm is the Glenbrohane Wind Farm (John Clery), situated around 15 km from the proposed development.

Table 1-4: Details of Operational Wind Energy Developments within 20km

Wind Farm Name	Planning Reference	Applicant	Location	Granted
Glenbrohane - John Clery Wind Farm	031367	John Clery	Glenbrohane, Kilfinane, Co Limerick	25/09/2003

Wind Farm Name	Planning Reference	Applicant	Location	Granted
Boolard Wind Farm	125997	Aerie Renewables Ltd	Boolard, Dromina, Co. Cork	09/11/2012
Rathnacally wind farm	124446	Aerie Renewables Ltd	Rathnacally, Charleville, Co. Cork	20/06/2012
Kilmeedy Wind Farm Limited	PL13.238964	Kilmeedy Wind Farm Limited	Ballinruane and Ballyhahil, Kilmeedy, Co. Limerick.	23/09/2011
Ballyhoura Wind Farm (Buttevant Wind Farm)	135885	DP Energy Ireland Ltd	Streamhill East, Streamhill West, Doneraile, Co.Cork	30/09/2013
Castlepook Wind Farm	PL04.240434	ESB Wind Developments	Castlepook North, Carker North, Ballyhoura, Co.Cork	20/02/2013

Any permitted and proposed wind farms in the area may also have cumulative effects should the construction phases overlap with the proposed development. These proposals would also contribute to achieving Green Energy targets.

Details of the planning applications and associated infrastructure relating to these wind farms is detailed in **Table 1-5**, with the closest proposed wind farm located approximately 8.2km away (Garrane Wind Farm).

Table 1-5: Wind Energy Related Planning Applications within 20km

Planning Reference	Applicant	Description	Location	Planning Authority Decision
ACP-323635-25	Garrane Green Energy Limited	9 no. wind turbines, grid connection, and all associated site works.	Ballynagoul, Co. Limerick	Awaiting Decision
2360016	John Cleary	The development consists of continuing the use of the wind energy development as constructed, beyond the time limit specified under condition no.3 planning reference no. 08/2124, originally granted planning permission under planning reference no. 03/1367 (extended under planning reference no. 06/3269). The wind energy development as permitted and constructed comprises 1 no. turbine with an overall height of 99.5m; hardstand area; substation and control room building; and extension of existing forest road to provide access)	Glenaree Sliabh Reagh Mountain Kilfinane, Co Limerick	Granted, Conditional (13/03/2023)
154155	DP Energy Ireland Ltd.	Permission for minor modifications to the previously approved Buttevant Wind Farm development comprising 6 no. wind turbines (Planning Ref. No. 13/5885). The development will consist of an increase in	Streamhill East & Streamhill West Doneraile, Co. Cork	Granted, Conditional 01/12/2015

Planning Reference	Applicant	Description	Location	Planning Authority Decision
		the maximum overall dimensions of the 6 no. permitted wind turbines (from 126m to 135m) alterations to the permitted site boundaries resulting in a reduction in site area and omission of permitted southern access to site and all associated site works above and below ground.		
175292	B&R Wind Limited	Works to connect the permitted Boolard Wind Farm (Reg. Refs. 12/5997 and 15/5521/PL.04.245560) to the existing Charleville 110kv ESBN substation comprising as follows: installation of approximately 5.694 km of 20kv underground electricity cable and fibre communications cable in ducting; 12 no. joint bays, 12 no. communications chambers and 2 no. earth link boxes (all underground); access covers to chambers and boxes at finished surface level; ancillary marker posts and marker plates as necessary; the replacement of an existing concrete pipe with a box culvert under an existing agricultural track and the construction of new parapet walls above the track; and all associated site development and reinstatement works. The development will consist of alterations to permitted wind farm site layout (as per Reg. Ref. 12/5997 and 15/5521 / PL.04.245560) as follows i) widening of permitted vehicular site entrance, ii) provision of 2 no. turning areas/overrun areas for turbine delivery/construction vehicles off the permitted wind farm site road iii) localized realignment and refinement of internal wind farm site road network, iv) increased crane pad size at both permitted turbine locations, and v) also, construction of control building (minor change of location from Reg. Ref. 15/5521/PL.04.245560)	Boolard, Shinanagh, Clyderragh, Cloghanughera, Killaree, Ardmore, Kiltass, Milltown, Garrynagranoge, Ballypierce, Clashganniv, Rathnacally, Charleville, Co Cork.	Granted permission by ACP with revised conditions 04/02/2019. ACP ref: 301000
166718	B&R Wind Ltd.	The installation of 458m of 20kV underground electricity cable, to be contained within ducting; ancillary marker posts; and all associated site development and reinstatement works.	Rathnacally and Garrynagranoge Charleville Co. Cork	Granted, conditional 21/12/2016

Planning Reference	Applicant	Description	Location	Planning Authority Decision
		The works are required to connect the permitted Rathnacally Wind Farm (Pl. Reg. Nos. 12/4446 and 15/5525) to the existing Charleville 110kV ESBN substation.		
155521	Aerie Renewables Ltd	Construction of control building for wind turbine development (change of plan from that permitted under planning reg. No. 12/5997) to meet new ESB Networks standard.	Boolard, Dromina, Co. Cork.	Granted permission by ACP with revised conditions 02/02/2016. ACP ref: 245560
155525	Aerie Renewables Ltd	Construction of control building for wind turbine development (change of plan from that permitted under planning reg. No. 12/4446) to meet new ESB Network standard.	Rathnacally, Charleville, Co. Cork.	Granted, Conditional 03/09/2015
191250	EirGrid plc, with the consent and approval of the ESB	Minor modifications to a previously permitted development (Ref. 12/1002). The proposed development comprises the extension of the existing Killonan 220/110 kV Electrical Substation compound by approx. 0.5ha along and adjacent to its existing western boundary. This will facilitate the proposed siting of a previously permitted Line Cable Interface Mast (LCIM) development includes the associated erection of 2.6m high palisade fencing along the extended western boundary of the substation compound and all associated and ancillary development at the existing Killonan 220/110 kV Electrical Substation	Milltown & Coolyhenan, Co. Limerick	Granted, Conditional 18/02/2020
166718	B&R Wind Ltd.	The installation of 458m of 20kV underground electricity cable, to be contained within ducting; ancillary marker posts; and all associated site development and reinstatement works. The works are required to connect the permitted Rathnacally Wind Farm (Pl. Reg. Nos. 12/4446 and 15/5525) to the existing Charleville 110kV ESBN substation.	Rathnacally and Garrynagranoge Charleville Co. Cork	Granted, Conditional 21/12/2016

Planning Reference	Applicant	Description	Location	Planning Authority Decision
146379	ESB Wind Development Limited, Coillte Teoranta	Modifications to previously approved Castlepook Wind Farm development comprising an increase in the overall dimensions, substitution of anemometer masts and associated works.	Castlepook North, Carker North, Ballyhoura, Co. Cork	Planning appeal withdrawn. ACP ref: 244741 Granted, Conditional 18/03/2015

1.4.4.3 Other Renewable Energy Developments

Eleven other renewable energy projects were identified within 20 km of the proposed development, including several solar farm related developments and 1 No. anaerobic digester project (see **Table 1-6**). The closest of these renewable energy developments is Ballycullane Solar Farm which is situated approximately 6.9 km from Ballinlee Wind farm. There is also 1 No. development at pre-planning stage, relating to a substation and grid connection approximately 8.5km east from the proposed development.

Table 1-6: Existing and Proposed Renewable Energy Planning Applications within 20km

Description	Planning Decision Date	Address	Distance from Site (km) and Direction
Cuan Mhuire Teoranta (114KWP photovoltaics solar farm system)	28/06/2019	Garrooe, Bruree House, Bruree, Co. Limerick.	c.9.2km north east
Terra Solar Ltd (3.5582 hectares solar farm)	05/04/2018	Woodstown, Lisnagry, Co. Limerick	c.20 km north east
Engie Developments Ireland Ltd (12.1 hectares solar farm)	30/08/2018	Islandduane, Mungret, Co. Limerick	c.18km south east
Soleire Renewables SPV Limited	22/11/2024	Fiddane, Cooliney, Coolcaum, Ballynoran, Ballynadrideen, Ardnageehy, Charleville, Co. Cork	c.19.9km south west
Soleire Renewables SPV Limited	16/02/2021	Townlands of Ballyroe, Dromin, Ballynadrideen, Ardnageehy, Rathnacally, and Clashganniv in Ballyhea, Charleville, Co. Cork	c.20 km south west
Ballycullane Solar Farm Ltd	12/06/2018	Ballycullane, Kilmallock, Co Limerick	c.6.9km south
Direct Route Ltd.	12/04/2023	Building Services Compound, South Tunnel Access, Castlemungret, Co. Limerick	c.20km north west
Rengen Technologies Ltd	09/06/2017	Grange Upper, Annacotty, Co. Limerick	c.20km north east
Engie Developments Ireland Ltd	28/08/2018	Gibbonstown, Kilmallock, Co. Limerick.	c.7.8km south east
Harmony Solar East Limerick Limited (Proposed substation and grid connection)	27/11/2025	West and South of Hospital Village and the Northwest of Knocklong Village in East County Limerick	c.8.5km east

Description	Planning Decision Date	Address	Distance from Site (km) and Direction
CycleØ IE Limited (Anaerobic digestion facility)	13/10/2025	Cappanihane, Bruree, Co. Limerick	c.10km south west

1.5 EIA Study Area

The EIA study area for the development includes the proposed development site, in addition to a wider area over which the various assessments and studies were carried out. Figure 1-1 shows the proposed development site (Planning Application Boundary) as per the planning application statutory drawings.

Figures 1-2 shows the landholding boundary which is the minimum extent of the lands considered as part of the environmental assessment in addition to the planning application boundary. The EIA also takes account of the spatial limits of individual environmental components outside the EIA study area boundaries where an effect can be reasonably expected as described in the individual chapters. For each environmental topic assessed in this report, the study area or Zone of Influence (ZOI) has been clearly defined based on the expected extent of potential impacts. The methodology and scientific rationale for determining each ZOI are outlined in the respective chapters, ensuring that the spatial boundaries are appropriate for accurately assessing the environmental effects of the proposed development.

The wind farm site is also located within a 'Preferred Area' for wind energy development as defined in the current Limerick Development Plan 2022-2028.

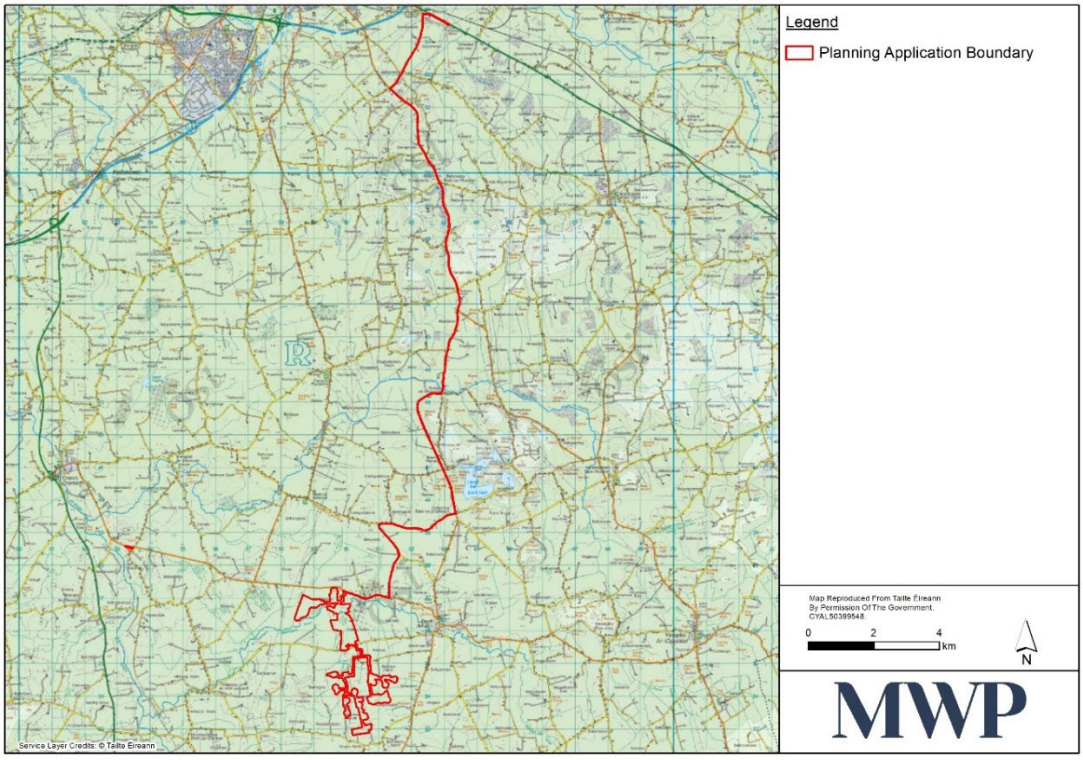

Figure 1-1: Site Location and Planning Application Boundary

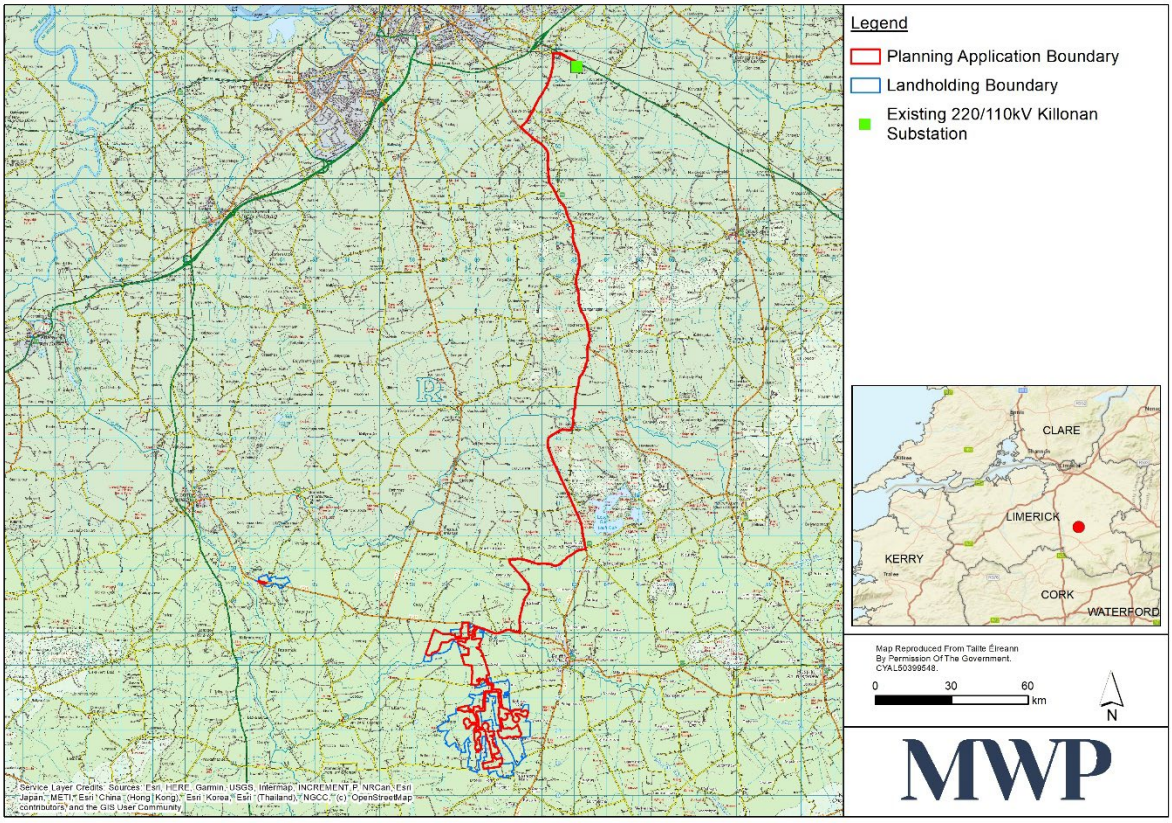

Figure 1-2: Landholding and Planning Application Boundary

1.6 Overview of EIAR Structure

The EIAR is prepared in accordance with the requirements outlined in Schedule 6 of the Planning and Development Regulations 2001, as amended and the 2022 EPA Guidelines on Information to be contained in an Environmental Impact Assessment Report.

The EIAR is presented in 4 No. Volumes as follows:

- Volume I: Non-Technical Summary;
- Volume II: Main Environmental Report;
- Volume III: Appendices; and
- Volume IV: Photomontages.

Separately, a Screening for Appropriate Assessment and Natura Impact Statement (NIS) accompany this application.

1.6.1 Volume I – Non-Technical Summary

The Non-Technical Summary provides a concise, easy-to-follow and understandable summary of the information included in this EIAR. The summary is presented similar to the grouped format structure which discusses each environmental topic separately.

1.6.2 Volume II – Main EIAR

This document provides a detailed description of the proposed development and contains specialist reports on each of the selected assessment topics. This document is prepared in the 'Grouped Format Structure' which examines each environmental topic area. Biodiversity is included across two chapters (Volume II, Chapter 06 Biodiversity and Volume II, Chapter 07 Ornithology of this EIAR). This structure was selected for the Main EIAR as it facilitates appropriate investigation of individual topics. This document is divided as follows:

- Chapter 01 Introduction;
- Chapter 02 Description of the Proposed Development;
- Chapter 03 Consideration of Alternatives;
- Chapter 04 Civil Engineering;
- Chapter 05 Population and Human Health;
- Chapter 06 Biodiversity;
- Chapter 07 Ornithology;
- Chapter 08 Land and Soils;
- Chapter 09 Water;
- Chapter 10 Air Quality;
- Chapter 11 Climate;
- Chapter 12 Landscape and Visual;
- Chapter 13 Noise and Vibration;
- Chapter 14 Cultural Heritage;
- Chapter 15 Shadow Flicker;
- Chapter 16 Material Assets – Traffic and Transport;
- Chapter 17 Material Assets – Built Services;
- Chapter 18 Interaction of the Foregoing; and
- Chapter 19 Schedule of Mitigation.

Each chapter follows a broad methodology framework including the following: Introduction, Methodology, Existing Environment, Potential Impacts, Mitigation Measures and Residual Impacts.

1.6.3 Volume III – Appendices

Volume III – Appendices contains supporting information and reference documents related to Chapters 01-19 of the main EIAR (Volume II).

1.6.4 Volume IV – Photomontages

Volume IV contains the photomontages prepared for the visualisation of the proposed development from the selected viewpoint locations.

1.7 Project Team

MWP are the lead Environmental and Engineering Consultants on this project and the final EIAR has been compiled by MWP on behalf of the Applicant.

The project team is a combination of in-house specialists and sub-consultants. The in-house environmental and engineering team at MWP specialises in wind farm development at both the pre-planning and construction phases. Specialist MWP consultants involved were:

Ken Fitzgerald, Aileen O'Connor, Paddy Curran, Conor McLoughlin, Kieran Barry, Claire Boylan, Caoimhe O'Connor, Serena O'Donnell, Alex O'Donnell, William Murphy, Jeremy King, Christopher Ahern, Micheal Fenton and Seamus Quigley.

Further specialist sub-consultants engaged were:

- Enfonic – Noise and Vibration;
- Laurence Dunne Archaeology – Archaeology & Cultural Heritage;
- Enviroguide – Water;
- Woodrow – Biodiversity, Ornithology & Bat Surveys;
- Macroworks - Landscape and Visual Impact Assessment / Photomontages; and
- Ai Bridges – Telecommunications and Aviation.

The team of specialists involved in the project design are presented in Table 1-7. Qualifications and competencies of the contributing authors to this EIAR are presented in Table 1-8.

Table 1-7: Project Design Team

Company	Role
Ballinlee Green Energy Ltd.	Site selection
	Wind resource analysis
	Community engagement
MWP - Environmental	Project Management, Design Engineering, EIA and Planning lead
MWP - Engineering	WF Design, TDR, Grid Connection: Route Design and Substation Design
Woodrow	Ecology lead, Biodiversity, Ornithology, Aquatics, Bats and Habitats

Table 1-8: Expertise of EIAR Team

EIAR Chapter/Role	Consultant	Qualification	Competencies
Planning and Stakeholder Manager	Ken Fitzgerald	Diploma in EIA Diploma in Planning Diploma in Coastal Zone Management Degree in Surveying Diploma in Construction Economics Director	Ken Fitzgerald has worked in the area of civil engineering, construction management, EIA and planning over the last 35 years. During the last 18 years he has focused on renewable energy and marine projects. He has managed the design, planning and preparation of EIA's on a number of large-scale wind energy projects. He has acted as planning lead on wind farm development projects that availed of both Local Authority and Strategic Infrastructure Development planning routes. He has expertise in planning appeals, public consultation, community engagement, Oral Hearings and in Judicial Review proceedings.
Planner	Caoimhe O'Connor	BA (Hons) Geography & Psychology MA Planning and Sustainable Development (MPLAN)	Caoimhe is a Planning Consultant who graduated from the Planning & Sustainable Development Masters Course in UCC. Caoimhe joined MWP in 2022 and since joining she has led the planning process on a diverse portfolio of renewable energy projects. Her experience spans projects progressed through both Local Authority and standard planning routes, as well as large-scale developments

EIAR Chapter/Role	Consultant	Qualification	Competencies
			advanced under the Strategic Infrastructure Development (SID) process.
01 Introduction 02 Description of the Proposed Development	Aileen O'Connor	Hons Bachelor's Degree in Environmental Science, (BSc) (PGDip) Energy Management Project Manager	Aileen is a Senior Environmental Consultant and has over 13 years' experience in the environmental field both in industry and consultancy work. Aileen is an experienced project manager with expertise in contaminated land assessment, licence compliance and waste management. Since joining MWP Aileen has coordinated planning submissions for Fenit Harbour and Bantry Culvert, prepared and peer reviewed chapters of EIARs and has coordinated and delivered many environmental assessment reports . Aileen has contributed to Material Assets Impact Assessments on a wide variety of projects during her career to date including renewable energy, marine, quarries, industrial and commercial developments.
03 Consideration of Alternatives	Serena O'Donnell	BA Honours (Geography), MSc Applied Environmental Geoscience.	This chapter of the EIAR has been prepared by Serena O'Donnell of Malachy Walsh & Partners (MWP). Serena has a BA Honours (Geography) and MSc. Applied Environmental Geoscience and is a graduate Environmental Scientist at MWP. Serena has experience in environmental consultancy since 2024, and in this time has worked on a variety of environmental projects including Inis Cealtra Visitor Centre, Ballinla Wind Farm, Shronowen Wind Farm and Bantry Culvert, assisting with the preparation of EIAR chapters, including lands and soils, Environmental Impact Reports, Geotechnical Interpretative Reports, Geotechnical Assessment Reports, Construction and Environmental Management Plans (CEMPs) and Resource Waste Management Plans (RWMPs).
	Aileen O' Connor	As above	As above
04 Civil Engineering	Paddy Curran	B.E. (Hons) in Civil Engineering Master's of Science in Soil Mechanics (MSc DIC) Associate	Paddy is an Associate Engineer at MWP and has 15 years' experience in civil engineering, particularly in the area of Geotechnical Engineering. He has worked on all stages of the project life cycle from feasibility through to commissioning on a large variety of projects. His experience includes delivering the geotechnical investigation/interpretation, ground modelling, design and construction support for a number of Irish and International marine, renewable energy, port and coastal projects. He has also worked on the planning stages of a large number of projects which included environmental impact assessment.
	Conor Mcloughlin	BE (Hons) Civil MIEI Project Manager	Conor is a Civil Engineer and Project Manager with 10 years' engineering experience in several different construction sectors including precast engineering, land development, major motorway projects, 3 waters projects (covering drinking water, wastewater and stormwater services), and most recently within Renewable Energy. His expertise covers sustainable urban drainage systems, contract management, project management, financial reporting, mentoring, wellbeing and team bonding, client, and contractor relationships through excellent communications. In New Zealand he worked on large scale motorway PPP schemes and extensive 3 waters projects (including water treatment plants and major urban flooding

EIAR Chapter/Role	Consultant	Qualification	Competencies
			projects). In Ireland he has worked on large urban redevelopments in the greater Dublin region and on renewable energy projects across Ireland. Alex is a Civil Engineer at MWP Since joining MWP, he has contributed to over 40 civil, geotechnical, marine, road, and coastal engineering projects. Alex primarily works with MWP's Civil, Geotechnical, and Roads/Bridges departments, authoring planning compliance reports as well as designing road and drainage schemes for renewable energy projects alongside designing coastal defences. He is highly active in conducting on-site inspections at wind farms, soil stabilisation projects, drainage schemes, and solar farms, among other field activities.
	Alex O'Donnell	B.E. (Hons) in Structural Engineering	
05 Population and Human Health	William Murphy	Bachelor of Arts, Geography Major MSc in Marine and Coastal Environments: Physical Processes, Policy, and Practice. Higher Diploma in Aquabusiness	William is an Environmental Scientist, with over four years' experience in the environmental sector. His work includes the preparation of reports and documentation for both terrestrial and marine projects. Since joining MWP, he has gained significant experience in renewable energy projects, particularly large-scale wind farm developments, contributing to environmental reporting and assessment across various project stages. He previously worked as a Marine Planner, where he was responsible for Foreshore Licence and Aquaculture applications, mapping, constraints analysis, and research into offshore renewable energy and aquaculture development. His combined experience supports the delivery of robust environmental assessments and reporting across a wide range of infrastructure and renewable projects.
06 Biodiversity	Maeve Maher McWilliams (Lead Author)	BSc (Hons) Biological Sciences, Queen's University Belfast, 2008 MSc Evolutionary and Behavioural Ecology, University of Exeter, 2010	Maeve is an Associate Director for Woodrow. Maeve has over 13 years' experience on complex EIAs and mitigation design for infrastructure and development projects across Ireland, Northern Ireland, and Scotland. Maeve has been involved in projects across several sectors such as renewable energy; linear infrastructure; flood relief schemes and port developments; tourism and recreation; residential, pharmaceutical, and data centre developments. Included in this list are over twenty onshore wind energy projects in Ireland and Northern Ireland, and associated substations and onshore grid connections. Maeve has provided advice and recommendations throughout project lifetimes from inception and due diligence, right through to the planning process and into post-planning compliance and secondary consents. As a field ecologist Maeve is skilled in multidisciplinary surveys, habitat surveys, bat surveys, mammal surveys, and specialises in ornithology surveys. As a project manager and ecologist, Maeve directs, manages and authors large scale EIA Reports (EIARs) biodiversity chapters including ornithology chapters for wind energy projects.
	Gerard Hayes	WFD river monitoring (Environmental Protection Agency), Stage 1 and Stage 2 Freshwater Pearl	Gerard Hayes is a Senior Aquatic Ecologist with over 13 years' experience in environmental consultancy. He is a member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) and the Freshwater Biological Association (FBA). Gerard has a diverse ecological profile, with Phase 1 habitat, tree, mammal (including bats), fish, bird, amphibian,

EIAR Chapter/Role	Consultant	Qualification	Competencies
		Mussel Surveying (Dr. Evelyn Moorkens), aquatic macroinvertebrate identification (Freshwater Biological Association)	macroinvertebrate survey experience. Gerard has experience across an array of infrastructure projects ranging from wind energy development, wastewater treatment, roads/bridges, water supply, flood defence and hydroelectric schemes.
	Petr Dobes	CIEEM, FBA Identification course of Freshwater Invertebrates	Petr has been a valuable member of MWP's Ecological team since May 2023. As a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM), he demonstrates a strong commitment to environmental stewardship. His fieldwork experience includes invasive species surveys, bird surveys, freshwater macroinvertebrate sampling and identification, as well as standard ecological survey methodologies such as mammal surveying and habitat mapping. He has also gained experience in conducting Appropriate Assessments (AA) and Ecological Impact Assessments (EcIA) across various projects, including wind farms of similar size and complexity to the proposed development.
07 Ornithology	Aron Sapsford (APEM)	A1 NVQ Assessor (Edexcel)	Aron is a principal ornithologist with Woodrow. He is a highly experienced ornithologist with over 30 years of expertise in designing and implementing large-scale bird research projects. He has a particular focus on species such as the Manx shearwater, red-billed chough, goldcrest, and wheatear. As the co-founder and scientific officer of the Manx Bird Atlas, he led the design and fieldwork for bird surveys that resulted in a comprehensive five-year breeding bird survey and a three-year winter atlas, culminating in the publication of the Manx Bird Atlas. Since earning an "A" grade British Trust for Ornithology ringing licence at the age of 18, Aron has served as the ornithological lead at several British bird observatories, processing over 250,000 birds of nearly 200 species. He is also a skilled writer with extensive report-writing experience, having contributed to numerous scientific journals. Currently, he is authoring a 64-year review of the ornithological history of the Calf of Man. A talented trainer and public speaker, Aron regularly delivers engaging talks and demonstrations on bird ringing and conservation. He is a member of the Manx Bird Records Committee and is in the process of applying for membership with the Chartered Institute of Ecology and Environmental Management (CIEEM).
08 Land and Soils	Claire Boylan	BBS, BSc (Env Mgt), DipSci, Adv Dip Planning & Environmental Law	Claire is an experienced Environmental Scientist at Malachy Walsh and Partners (MWP), having worked for 6 years in the environmental sector. Claire has written numerous assessment chapters for large scale planning applications such as LRD, quarries and commercial developments including EPA Licensed sites. Claire has worked on a variety of environmental licensing applications, conducted environmental assessments and supported the delivery of a number of environmental deliverables including Environmental Impact Assessment (EIA) Screening Reports, Appropriate Assessment (AA), Natura Impact Statements (NIS) and Environmental Impact Assessment Reports (EIAR). She also brings specialised expertise in renewable energy projects, having conducted environmental

EIAR Chapter/Role	Consultant	Qualification	Competencies
			assessments for wind farm developments and associated grid connections.
09 Water	Warren Vokes (Enviroguide)	Ba, MSc, MCIWEM C.WEM	Warren Vokes Ba MSc MCIWEM C.WEM is a Senior Consultant of Enviroguide with over 8 years' experience. Warren holds a MSc River Environments and their Management and is a Chartered Water and Environmental Manager with over 8 years' experience as an Environmental Consultant. Warren has carried out environmental assessments for a range of project types (including wind farms of similar scale) and geological and hydrogeological site settings.
10 Air Quality	Kieran Barry	BEng, PgDip Environmental Scientist	Kieran Barry is an experienced Environmental Scientist with over 9 years' in the environmental sector. He has extensive expertise in the preparation of Environmental Impact Assessment Reports (EIARs) for major infrastructure and renewable energy projects, having authored chapters on Air, Climate, Material Assets, Population and Human Health, and Shadow Flicker (Wind Farms). Kieran specialises in air and noise impact assessments, including baseline air quality monitoring, dispersion modelling, and the development of mitigation strategies for large-scale infrastructure, industrial, and renewable schemes. His project portfolio includes EIARs, EIA Screening Reports, feasibility and constraints studies, and route option assessments, with a strong emphasis on renewable energy developments such as solar farms, wind farms, battery energy storage systems (BESS), and associated grid connection infrastructure.
11 Climate	Claire Boylan	As above	As above
12 Landscape and Visual Assessment (LVIA) and Visuals	Richard Barker (Macroworks)	Masters in Landscape Architecture	Divisional Director and Landscape Architect at Macro Works Ltd (part of APEM Group), in Cherrywood, Dublin. Richard is a corporate member of the Irish Landscape Institute (ILI) and has undertaken LVIA work for over 100 wind farms amongst numerous other large scale infrastructure development projects in Ireland over the past 20 years. Richard has also presented conference papers and webinars on the topic of LVIA to the ILI with a particular focus on wind energy development.
13 Noise and Vibration	Enfonic – Gary Duffy	BEng, MIOA	Gary Duffy (Principal Consultant) is the managing director of Enfonic with over 25 years' experience as an acoustic engineer and consultant. He has extensive knowledge in the field of noise measurement, prediction, and impact assessment. He co-wrote the EPA's original guidance note on noise and represented the IOA on the technical advisory committee of the Department of the Environment's revision of Part E (Sound Insulation) of the Building Regulations. He is a founder member of the Irish branch of the Institute of Acoustics and a sitting member of the current committee. He has considerable expertise in the assessment of wind turbine noise and conducted many similar impact assessments for EIARs.
14 Cultural Heritage	Laurence Dunne	BSc	For over twenty years, Laurence Dunne and his experienced staff have completed an extensive and diverse range of terrestrial and underwater projects in many environments and situations across a range of developments. Laurence Dunne Archaeology Ltd. has the expertise and competency to complete all aspects of archaeological assessment.

EIAR Chapter/Role	Consultant	Qualification	Competencies
15 Shadow Flicker	Kieran Barry	As above	As above
	Jeremy King	Cert IA, Cert CAD, HDip AutoCaD & GIS Technician	Jeremy has over 19 years' of experience at MWP and is the firm's Lead GIS Technician. He has been the lead GIS contributor on more than 25 wind farm projects, supporting the environmental team in EIAs, EISs, feasibility studies, and planning applications. Jeremy works closely with the wind farm civils design team, providing constraint mapping and generating GIS baseline data that directly informs project design and layout. He also prepares models for shadow flicker analysis and collaborates with EIA specialists to ensure GIS input supports comprehensive environmental assessments.
16 Material Assets – Traffic and Transport	Seamus Quigley	BE CEng MIEI MCIHT	This chapter assessment has been prepared by Seamus Quigley of MWP. Seamus Quigley has 34 years' experience in transport planning and traffic engineering projects, including EIS/EIAR traffic and transportation chapters, traffic impact assessments, traffic management studies, mobility management plans, traffic modelling studies, feasibility studies and road safety audits. He is a Chartered Engineer with Engineers Ireland, and also a member of the Chartered Institution of Highways and Transportation. He joined MWP in 2007, having spent over sixteen years with Atkins.
17 Material Assets – Built Services	Kieran Barry	As above	As above
18 Interaction of the Foregoing	Serena O'Donnell	As above	As above
19 Schedule of Mitigation	William Murphy	As above	As above

1.8 Technical Difficulties and Availability of data

There were no difficulties encountered in the preparation of this EIAR. As is standard practice best available predictive modelling techniques were used where relevant to inform the assessment.

1.9 Note on Drawings and Graphics

Details of the proposed development are supported by the planning application drawings prepared by MWP in compliance with our internal Quality Management System (accredited to ISO: 9001) and the requirements of the Planning and Development Regulations 2001 (as amended). These drawings accompany the planning application and are referenced as relevant throughout this EIAR. It should be noted that these drawings have been reduced in scale within this EIAR for more convenient examination.

1.10 Viewing and Purchasing the EIAR

Copies of this EIAR will be available online, including the Non-Technical Summary (NTS), on the website of An Coimisiún Pleanála, under the relevant Planning Reference Number (to be assigned on lodgement of the application).

- An Coimisiún Pleanála: http://www.pleanala.ie/

This EIAR and all associated documentation will also be available for viewing at the offices of both An Coimisiún Pleanála and Limerick City and County Council. The EIAR may be inspected free of charge or purchased by any member of the public during normal office hours at the following address:

- An Coimisiún Pleanála, 64 Marlborough Street, Dublin 1;
- Planning Department, Limerick City and County Council, Dooradoyle, Limerick, V94 WV78.

The EIAR will also be available to view online via the Department of Planning, Housing and Local Government's EIA Portal, which will provide a link to the planning authority's website on which the application details are contained. This EIA Portal was set up by the Department as an electronic notification to the public of requests for development consent which are accompanied by an EIAR.

This EIAR will also be available to view online on its dedicated website: https://ballinleegreenenergyplanning.ie/ .

1.11 References

DEHLG (2006) *Planning Guidelines for Wind Energy*. Department of Environment, Heritage and Local Government.

DHPLG (2018) *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.* Department of Environment, Heritage and Local Government.

DHPLG (2019) *Draft Revised Wind Energy Guidelines*. Department of Housing, Planning and Local Government.

EPA (2022) *Guidelines on the Information to be contained in Environmental Impact Assessment Reports. Environmental Protection Agency*.

Directive 2011/92/EU on the effects of certain public and private projects on the environment (EIA Directive) as amended by Directive 2014/52/EU EU (2017) Environmental Impact Assessment of Projects: Guidance on Scoping. European Union.

Limerick City and County Council (2022) Limerick Development Plan 2022-2028.