

Chapter 1 Introduction

Slieveacurry Renewable Energy Development, Co. Clare

Environmental Impact Assessment
Report (EIAR)



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1. INTRODUCTION

1.1 Introduction

This Environmental Impact Assessment Report (EIAR) has been prepared by MKO on behalf of Slieveacurry Ltd (the Applicant), who intends to apply to An Coimisiún Pleanála (ACP) for planning permission to construct a renewable energy development comprising 9 no. turbines and all associated infrastructure in the townland of Glendine North and adjacent townlands, Co. Clare, a permanent extension to the existing 110kV Slievecallan substation at and associated works, including underground 33kV internal cabling to connect to the national grid in the townland of Knockalassa, Co. Clare. A detailed description of the renewable energy development is provided in Chapter 4: Description of the Proposed Project, of this EIAR.

Full details of the pre-application consultation undertaken with regards to the planning application can be found in Section 2.8 in Chapter 2: Background to the Proposed Project of this EIAR.

1.1.1 Measures to Address Reasons for Refusal

As described in further detail in Section 1.2 below, Slieveacurry Ltd. submitted an application in November 2021 for planning permission for an 8 no. turbine renewable energy development and associated works in the townland of Slieveacurry and adjacent townlands, in Co. Clare (Planning Ref. 21/1226). Following refusal by Clare County Council, the decision was appealed to ACP in February 2022 (ABP-312728-22). This resulted in a refusal on three grounds, which have been carefully considered and addressed in the current application. Measures to address the grounds for refusal are summarised below:

1. Proposed Peat and Spoil Repositories

Following consideration of the points raised under Reason no. 1 on ACP's decision to refuse the previous wind farm application, the Proposed Wind Farm Site was subject to further detailed site investigations and surveys, which are outlined in Chapter 4: Description of the Proposed Project and Chapter 8: Land Soils and Geology of the EIAR. The completion of these site investigations, in addition to the site investigations conducted for the previous wind farm application, provide sufficient detail to give a clear understanding of the land and ground conditions on site. Additional site investigations informed refinements to the design of infrastructure associated with the management of peat and spoil within the Site. An updated Peat Stability Risk Assessment that considers all project elements has been prepared and a revised Peat and Spoil Management Plan has also been produced as part of the design phase of the project. Further consideration has also been given to the drainage and monitoring measures during the construction and operational phases in order to ensure adequate protection of the environment. Full details of the revised peat and spoil management plan are identified in Chapter 4: Description of the Proposed Project and assessed further in Chapter 8: Land, Soils and Geology and associated appendices.

2. Assessment of adverse effects on European sites.

It is acknowledged that one of the reasons for the refusal of the previous application was the potential sediment pollution impact of the Proposed Project, individually or cumulatively with other projects, on the watercourses in the area, and the prospect of this affecting the integrity of the surrounding European Sites. Further to the items discussed under the first refusal reason above, the revised Peat and Spoil Management Plan, as well as the revised drainage design, as elements of the Proposed Project was subject to an Appropriate Assessment Screening and NIS included with this application to determine the potential for adverse effects exists on the integrity of any European Site. The NIS concludes that

that the Proposed Project, on the basis of the best available information, beyond reasonable scientific doubt, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in view of its conservation objectives. Further assessment of the potential for effects of the Proposed Project is considered cumulatively and in combination with other proposed developments within the NIS.

3. Sensitivity of areas of high ornithological value and of value to Annex II Species

In response to the refusal reason regarding concerns over significant cumulative effects on species of high ornithological value, the accompanying EIAR provides an updated assessment of likely significant impacts of the Proposed Project on avian receptors, supplemented with over 5 years of continuous field surveys. The assessment of cumulative effects on key ornithological receptors such as golden plover and hen harrier also includes a landscape-level assessment considering the most recent list of cumulative projects, including constructed, planned and permitted wind farms in the surrounding area. A hen harrier habitat enhancement plan has been proposed, taking into consideration most recent data on the population of this species. Following its implementation, the Proposed Project will not contribute to a significant cumulative effect, as there will be no net loss of hen harrier habitat. Please refer to Chapter 7: Ornithology and associated appendices including Appendix 6-4 BMEP.

Further marsh fritillary habitat conditions assessments and larval web surveys have been undertaken in 2024 and 2025 to ensure the Proposed Project design has no significant effects on marsh fritillary habitat. A BMEP has also been prepared to provide habitat enhancement within the Site, by managing areas of suitable habitat specifically for marsh fritillary including a monitoring programme during the construction and operational phases. Following implementation of the proposed mitigation measures and the BMEP, there are no significant effects on habitat of high value to Annex II species associated with the Proposed Project. Please refer to Chapter 4: Description of the Proposed Project, Chapter 6: Biodiversity, Chapter 7: Ornithology and associated appendices including Appendix 6-4 BMEP.

In light of the above, it has been demonstrated that the Proposed Project would not be contrary to the proper planning and sustainable development of the area..

1.1.2 References to the Proposed Project

The Proposed Project will be known as the ‘Slieveacurry Renewable Energy Development’.

For the purposes of this EIAR:

- Where the ‘Proposed Project’ is referred to, this encompasses the entirety of the project for the purposes of this EIA in accordance with the EIA Directive. The Proposed Project is described in detail in Chapter 4: Description of the Proposed Project.
- Where the ‘Site’ is referred to, this relates to the primary study area for the EIAR, as delineated by the EIAR Site Boundary in green as shown on Figure 1-1 of the EIAR and encompasses an area of approximately 1,260 hectares.
- Where the ‘Proposed Grid Connection Site’ is referred to, this refers to the part of the Site containing the proposed extension to the existing 110kV Slieveacallan substation at and the 33kV underground cabling connection from the wind farm road to the proposed substation extension.
- Where the ‘Proposed Wind Farm Site’ is referred to, this refers to the portion of the Site containing the proposed turbines and ancillary infrastructure, excluding the Proposed Grid Connection Site.
 - The ‘Proposed Turbines’ refers to the 9 no. turbines associated with the Proposed Wind Farm Site as outlined above.
- Where the ‘Proposed Enhancement Site’ is referred to, this refers to the portion of the Site containing the proposed biodiversity and ornithology enhancement and

management areas, excluding the Proposed Wind Farm Site and Proposed Grid Connection Site.

This EIAR will accompany the planning application for the proposed renewable energy development to be submitted to ACP. The planning application will also be accompanied by a Natura Impact Statement (NIS). Both the EIAR and NIS contain the information necessary for ACP to complete the Environmental Impact Assessment and Appropriate Assessment as required for this planning application.

Both the EIAR and NIS take into account the combined impacts of these individual elements of the Proposed Project.

For clarity in this EIAR, all elements of the Proposed Project will be assessed cumulatively and in combination with other projects to aid the competent authority in carrying out an EIA.

The EIAR Site Boundary identifies the primary EIAR site area for the Proposed Project. However, each individual topic, i.e., chapter, determines its own study area for assessment purposes relevant to that topic which will be clearly identified in the relevant chapters. The actual site outline (red line planning application boundary) for the purposes of this planning permission application occupies a smaller area within the EIAR Site Boundary. The EIAR Site Boundary encompasses an area of approximately 1260 ha. The permanent built infrastructure footprint of the Proposed Project measures approximately 8.4 ha, which represents approx. 0.7% of the Site.

The Proposed Project is described in detail in Chapter 4: Description of the Proposed Project.

1.1.3 Site Location

The Site is located approx. 7km south of Ennistimon, Co. Clare and 8km west of Inagh, Co. Clare. The town of Miltown Malbay is located approx. 5.8km east of the nearest proposed turbine (T07). It is proposed to access the Proposed Wind Farm Site via an existing access track off the local road to the northwest of the Site. The Proposed Wind Farm Site is served by a number of existing local, forestry and agricultural roads and tracks. The Site location context is shown in Figure 1-1.

The planning application includes for an extension to the existing Slievecallan 110kV substation in the townland of Knockalassa, Co. Clare. The planning application also includes for the construction of a 33kV underground cabling connection from the Proposed Turbines to the extension existing Slievecallan 110kV substation. The proposed underground cable connection measures approx. 7.1 km in total and is located on existing forest roads/land, agricultural land and within the public road corridor.

Current land-use on the Site comprises coniferous forestry, agriculture, turf cutting, existing renewable energy infrastructure and public road corridor. Land-use in the wider landscape comprises a mix of agriculture, low density housing, renewable energy and commercial forestry.

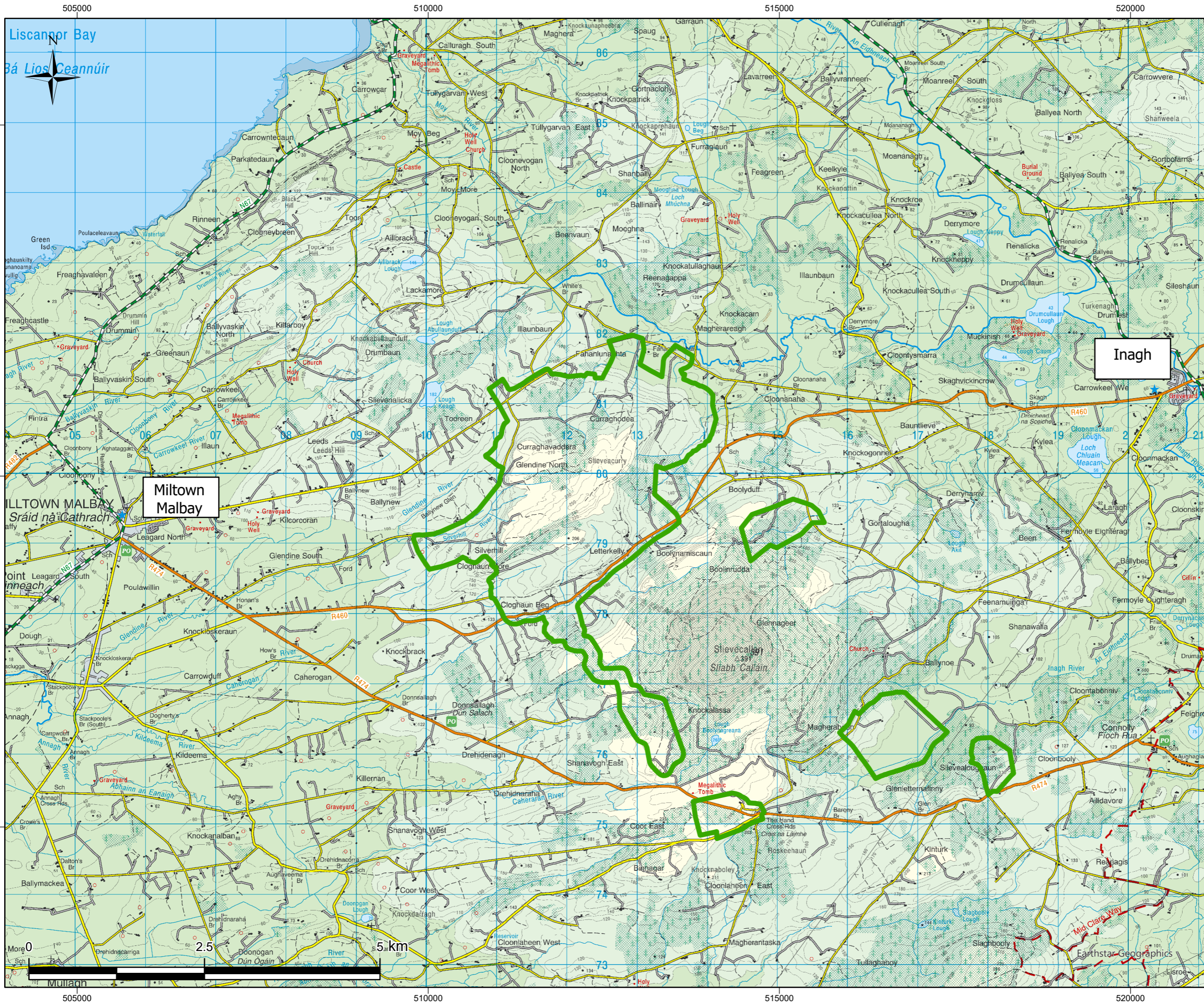
The Proposed Project is being brought forward in response to local, national, regional and European policy regarding Ireland's transition to a low carbon economy and associated climate change policy objectives. The Site is located within an area designated in the Clare County Development Plan, 2023-2029 (as varied) as **'Strategic'** for wind energy development.

The townlands in which the Proposed Project is located are listed in Table 1-1.

Table 1-1 Townlands within which the Proposed Project is Located

Development Works	Townland
Proposed Wind Farm Site.	Cloghaun More, Curraghodea, Fahanlunaghtamore, Fahanlunaghta Beg, Glendine North, Silverhill, Tooreen, and Cloghaun Beg*
Proposed Grid Connection Site	Curraghodea, Doonsallagh East, Knockalassa, Letterkelly, Shanavogh East* and Boolynamiscaun*
Proposed Enhancement Site	Boolinrudda, Cloonlaheen Middle, Curraghodea, Letterkelly, Magherbaun, Silverhill, Slievealoughaun, Ballynoe*, Boolyduff*, Cloonanaha*, Cloonlaheen East*, Cloontabonniv*, Doonsallagh East*, Fahanlunaghta Beg*, Glenletternafinny*, Gortalougha*, Knockloskeraun*, Knockogonnell*, Silverhill*

**Townlands located within EIAR boundary, but not within planning application boundary*



Map Legend

- EIAR Site Boundary

Spatial Reference
 Name: IRENET95 Irish Transverse Mercator
 Datum: IRENET95
 Projection: Transverse Mercator

Site Location
 Drawing Title: SITE LOCATION - NOT TO SCALE

Project Information

Project Title: Slieveacurry Renewable Energy Development		
Project No: 240718	Drawing No: 1-1	Scale: 1:50,000
Drawn By: CF	Checked By: BT	Date: 13/02/2026

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Project History

October 2020 Application – Planning Ref: 20/806

In October 2020, Slieveacurry Ltd. applied to CCC for planning permission for an 8 no. turbine renewable energy development and associated works on the Site. In January 2021, Slieveacurry Ltd. withdrew the planning application due to third party legal challenge against the Council's procedures surrounding the processing of the application.

April 2021 Application – Planning Ref: 21/370 & ABP-310707-21

A further planning application for the 8 no. turbine renewable energy development and associated works on the Site was lodged by Slieveacurry Ltd. in April 2021. CCC refused permission in June 2021 and the Applicant subsequently appeal CCC's decision to An Bord Pleanála (now ACP). In October 2021, Slieveacurry Ltd. withdrew the appeal considering the findings of the Derryadd Wind Farm High Court judgment regarding the plans and particulars required for planning applications. It was decided that a further application would be made including precise dimensions for the wind turbines proposed.

November 2021 Application – Planning Ref. 21/1226 & ABP-312728-22

Slieveacurry Ltd. submitted a revised application for planning permission in November 2021 for the same 8 no. turbine renewable energy development and associated works on the Site (Planning Ref. 21/1226). In January 2022, the application was refused by CCC for 4 no. reasons:

1. Height, scale and siting of the turbines proposed being prominent on the landscape and seriously injuring the visual amenities of the area thereby contravening Objective CDP 13.2 of the Development Plan.
2. Noise and disturbance generated from the turbines, cumulatively with other windfarms would seriously injure the amenities of residential property. The turbines would be visually overbearing and thus depreciate property values. The proposal is therefore contrary to Objective CDP 8.40 of the Development Plan.
3. The Planning Authority was not satisfied that the proposal by itself and in conjunction with the cumulative impact with existing and permitted windfarm development would not have a significant adverse ecological impact on the habitat of a number of bird species, including Hen Harrier. The proposal therefore contravenes Objective CDP 14.7 of the Development Plan.
4. The Planning Authority was not satisfied that the management of peat would not have an adverse impact on ground stability or the hydrology of the site.

The decision by CCC was appealed to An Bord Pleanála (now ACP) in February 2022 (ABP-312728-22). In May 2024 the Board decided to refuse permission for the 8-turbine proposal on 3 grounds:

1. *“Having regard to:*
 - (a) the upland and sloping nature of the terrain;*
 - (b) the high rainfall levels prevalent at this location;*
 - (c) blanket bog being the dominant soil type at the site and the importance of assessing any biodiversity impact on this natural resource;*
 - (d) the mapped trending faults intersecting the wind farm site;*
 - (e) the high density of drainage channels throughout the site, both natural and man-made;*

- (f) the timing of construction works outside of the breeding season for birds coinciding with wetter periods;*
 - (g) the areas of trees to be clear felled, with peat soils and subsoils subsequently exposed;*
 - (h) the water crossings and crossing upgrades required;*
 - (i) the existence of deep peat at turbine locations and along existing and proposed access roads;*
 - (j) the significant volumes of peat and other spoil material requiring excavation, handling, storage and management on the site;*
 - (k) the instability associated with the works and movement of waste material, including the necessity for placement of substantial volumes of waste peat and other spoil materials in two large repositories on bogland hilly terrain;*
 - (l) the construction of high retaining stone buttresses required to contain waste peat and other spoil;*
 - (m) the peat-dominated nature of the soils at the repository locations;*
 - (n) the lack of a clear understanding of the land and ground conditions associated with the development of the proposed spoil repositories, including matters relating to the final construction of the repositories, the drainage of the peat repositories, measures required for the control of groundwater, the type and condition of rock at the repository locations, the hillside siting of the repositories, and the associated clear felling of forestry;*
 - (o) the construction works culminating in interference with the natural terrain by the development of the turbine bases and the hardstanding areas, the construction of access roads cutting across contours on bogland, the provision of preferential flow paths for surface waters, and road widening and improvement works along existing internal roads; and*
 - (p) the proposed highly complex system of drainage and the very precise nature of the application of many of the proposed conceptual measures required for their safe functionality on a blanket bog dominated site;*
- and on the basis of the information submitted with the application and appeal,*

the Board cannot be satisfied that the proposed development would adequately mitigate the risk of failure to contain the spoil in the proposed repositories as a consequence of the development of the proposed wind farm, with potential for causing pollution of waterbodies within, and in the vicinity of, the site. Furthermore, the Board is not satisfied, on the basis of the information submitted with the application and appeal, that the proposed repositories would be effective in providing for the permanent retention of peat and other materials and that the mitigation measures, inclusive of the proposed drainage system, would be adequate to ensure the protection of the environment.

In view of the above, it is considered that the proposed development would present a significant risk of adverse environmental impact on the sensitive natural habitats of the site and of the wider area and would constitute an unacceptable risk of pollution of watercourses in the area. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

- 2. On the basis of the information submitted with the application and appeal including the Natura Impact Statement, and in light of the assessment of the Board by reference to the issues set out in reason number 1 above, including the risk of pollution of watercourses in the area, the Board cannot be satisfied that the proposed development, either individually or in combination with other projects, would not adversely affect the integrity of European Sites' - Inagh River Estuary Special Area of Conservation (Site Code:000036), Carrowmore Point to Spanish Point and Islands Special Area of Conservation (Site Code:001021), and Mid Clare Coast Special Protection Area (Site Code:004182) in view of the sites' Conservation*

Objectives. In such circumstances, the Board is precluded from granting permission for the proposed development.

3. Based on the information submitted with the application and appeal, the Board noted the range of bird species of conservation value that have been observed on, over and in close proximity to the site indicating this to be an ecologically sensitive area of significant ornithological value and of value to the Annex II species, Marsh Fritillary. In the absence of data monitoring the impacts, if any, of existing wind farm developments in this area on these birds and species of conservation value and their habitats, together with the particular sensitivity of some species such as Golden Plover and Hen Harrier to relatively low levels of mortality, the Board cannot be satisfied that the cumulative environmental assessment of the likely effects of the proposed development on avifauna can reasonably exclude the possibility of a significant impact. In this regard, it is considered that the proposed development would be contrary to the proper planning and sustainable development of the area.

1.3

Legislative Context of Environmental Impact Assessment

The consolidated European Union Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (the 'EIA Directive'), has been transposed into Irish planning legislation by the Planning and Development Act 2000 as amended and the Planning and Development Regulations 2001 as amended. Directive 2011/92/EU was amended by Directive 2014/52/EU which has been transposed into Irish law with the recent European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018); amending the Planning and Development Act, 2000 and the Planning and Development Regulations 2001. Most of the provisions of the new regulations came into operation on the 1st of September 2018 with a number of other provisions coming into operation on the 1st of January 2019.

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 Environmental Impact Assessment (EIA) of the Project will be undertaken by An Coimisiún Pleanála, as the competent authority.

Article 5 of the EIA Directive provides that where an EIA is required, the developer shall prepare and submit an environmental impact assessment report (EIAR). The information to be provided by the developer shall include at least:

- i. a description of the project comprising information on the site, design, size, and other relevant features of the project.*
- ii. a description of the likely significant effects of the project on the environment.*
- iii. 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.*
- iv. 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.*
- v. a non-technical summary of the information referred to in points (a) to (d); and*
- vi. 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.

MKO was appointed as environmental consultant on the Proposed Project and commissioned to prepare this EIAR in accordance with the requirements of the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU.

Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended, identifies classes and scales of development that require Environmental Impact Assessment (EIA). The relevant class of development in this case relates to “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”, as per Item 3(i) of the Schedule. The Proposed Project exceeds 5 Megawatts in scale and proposes more than 5 turbines, and therefore is subject to EIA.

The EIAR provides information on the receiving environment and assesses the likely significant effects of the proposed project on it and proposes mitigation measures to avoid or reduce these effects. The function of the EIAR is to provide information to allow the competent authority to conduct the EIA of the proposed project.

All elements of the Proposed Project, i.e. the Proposed Wind Farm Site, the Proposed Grid Connection Site and Proposed Enhancement Site have been assessed as part of this EIAR.

1.3.1

EIAR Guidance

This EIAR has been prepared in accordance with the Environmental Protection Agency’s (EPA) published guidance titled ‘*Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*’ (EPA, 2022)¹ in May 2022, which is intended to guide practitioners preparing an EIAR in line with the requirements set out in the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

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 2018² to the extent these guidelines are relevant having regard to the enactment of the revised EIA Directive.

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*’. MKO has prepared the EIAR in accordance with these guidelines also.

1.3.2

Wind Energy Development Guidelines for Planning Authorities

The relevant considerations under the ‘*Wind Energy Development Guidelines for Planning Authorities*’ (Department of the Environment, Heritage and Local Government (DOEHLG), 2006)³ (hereafter referred to as the DoEHLG 2006 Guidelines) have been taken into account during the preparation of this EIAR.

¹ https://www.epa.ie/publications/monitoring-assessment/assessment/EIAR_Guidelines_2022_Web.pdf

² <https://assets.gov.ie/static/documents/guidelines-for-planning-authorities-and-an-bord-pleanala-on-carrying-out-environmental.pdf>

³ <https://assets.gov.ie/static/documents/wind-energy-development-guidelines-2006.pdf>

The DoEHLG 2006 Guidelines were the subject of a targeted review. The proposed changes to the assessment of impacts associated with onshore wind energy developments were outlined in the document Draft Wind Energy Development Guidelines⁴ (December 2019) (hereafter referred to as the Draft DoEHLG 2019 Guidelines). A consultation process in relation to the Draft DoEHLG 2019 Guidelines closed on 19th February 2020. The proposed changes presented in the Draft DoEHLG 2019 Guidelines give certain focus on the setback distance from residential properties (four times the proposed maximum tip height), along with shadow flicker and noise requirements relative to sensitive receptors.

At time of writing, the Draft DoEHLG 2019 Guidelines have not yet been adopted, and the relevant guidelines for the purposes of section 28 of the Planning and Development Act 2000, as amended, remain to be the DoEHLG 2006 Guidelines. Notwithstanding this, however, due to the timelines associated with the planning process for renewable energy projects and the commitment within the Climate Action Plan 2025 (CAP25) to develop revised wind energy development guidelines for onshore wind in Q1 2025⁵ (refer to Section 1.6.1.1 below), it is possible that the Draft DoEHLG 2019 Guidelines may be adopted during the consideration period for the current planning application. Should the Draft DoEHLG 2019 Guidelines be adopted in advance of a planning decision being made on this application, the Proposed Project will be capable adhering to any revised noise and shadow flicker standards. While the final updated Guidelines have not yet been published it should be noted that Noise and Shadow Flicker are entirely controllable and are discussed further in Chapter 12: Noise and Vibration, and Chapter 5: Population and Human Health, respectively. The Proposed Project has been designed to achieve the recommended distance of 4 times turbine tip height from Proposed Turbines to third party sensitive receptors, which has become a recognised standard for the purposes of protecting residential visual amenity, as outlined in the Draft DoEHLG 2019 Guidelines.

1.4 The Applicant

The Applicant for the Proposed Project, Slieveacurry Ltd, is an associated company of Enerco Energy Ltd., which is an Irish-owned, Cork-based company with extensive experience in the design, construction and operation of wind energy developments throughout Ireland, with projects currently operating or in construction in Counties Cork, Kerry, Limerick, Clare, Galway, Mayo and Donegal.

By Q3 2025, Enerco associated companies had over 925 Megawatts (MW) of wind generating capacity in commercial operation or in construction, with a further c.400MW of projects at various stages in its portfolio to assist in meeting Ireland's renewable energy targets.

⁴ <https://assets.gov.ie/static/documents/draft-revised-wind-energy-development-guidelines-december-2019-385c92c2-16f9-4511-80bf.pdf>

⁵ Department of the Environment, Climate and Communications (April 2025) Climate Action Plan 2025 Annex of Actions (EL/24/5)

Brief Description of the Proposed Project

The Proposed Project comprises 9 no. wind turbines, underground 33kV cabling and the permanent extension of the existing Slievecallan 110kV substation and all associated works and apparatus. The full description of the Proposed Project is detailed in Chapter 4: Description of the Proposed Project. The current planning application is being made to An Coimisiún Pleanála under Section 37E of the Planning and Development Act, 2000, as amended.

The development description for the current planning application as it appears in the public notices is as follows:

- i. 9 No. wind turbines with an overall ground-to-blade tip height of 175 metres; rotor diameter of 150 metres; and hub height of 100 metres, and a meteorological mast with a height of 30 metres, and subsequent decommissioning of the wind turbines and meteorological mast, following a thirty five-year operational period from the date of full commissioning of the wind turbines;*
- ii. Associated wind turbine and meteorological mast foundations and hardstanding areas;*
- iii. An extension to the existing 110kV substation compound in the townland of Knockalassa (Including the provision of a new control building (floor area of 112.5 sq.m) with welfare facilities, all associated electrical plant and apparatus for an additional 110kV bay, security fencing, underground cabling, underground wastewater holding tank, site drainage and all ancillary works);*
- iv. Underground electrical (33kV) and communications cabling connecting the proposed wind turbines and meteorological mast to the 110kV substation extension via proposed and existing private access road/tracks and the R460 regional road;*
- v. Temporary accommodation works to facilitate the delivery of turbine components and other abnormal sized loads on the L6230, L1076, L2118 and L1074 local roads;*
- vi. Upgrade and widening works to the L6230 local road and access junction off the L6230 local road;*
- vii. Upgrade of existing tracks/roads and provision of new site access roads and hardstanding areas;*
- viii. A borrow pit;*
- ix. 2 no. temporary construction compounds (including site offices and welfare facilities, with a combined floor area of 202.5 sq.m);*
- x. Peat and Spoil Management;*
- xi. Site Drainage;*
- xii. Tree felling and vegetation removal;*
- xiii. Biodiversity Management and Enhancement Plan measures (including hedgerow planting, peatland, marsh fritillary and hen harrier habitat enhancement areas);*
- xiv. Operational stage site signage; and*
- xv. All associated site development works and apparatus.*

The applicant is seeking a ten-year permission and an operational period of thirty-five-years for the wind turbines, meteorological mast and site signage from the date of full commissioning of the wind turbines. Permanent planning permission is being sought for all other works.

Modern wind turbine generators currently have a potential generating capacity in the 4 to 7 MW range, with the generating capacity continuing to evolve upwards as technology improvements are achieved by the turbine manufacturers. For the purposes of this EIAR it is assumed that the wind turbine model installed as part of the Proposed Project will have a generating capacity of 6MW. Therefore, on this basis, the proposed 9 no. wind turbines would have a combined generating capacity of 54MW. The actual turbine procured as part of a competitive tender process may have a generating potential that is marginally lower or greater than the 6MW turbine described in the EIAR. Irrespective of the power output of the actual turbine procured, the conclusions of the EIAR will not be materially affected.

As detailed in Section 3.2.5.2 in Chapter 3: Consideration of Reasonable Alternatives, the layout of the Proposed Project has been led by consideration of constraints and facilitators, thereby avoiding the environmentally sensitive parts of the Site. The roads layout for the Proposed Wind Farm Site makes the use of the existing onsite access roads and tracks where possible, with approx. 2.3 kilometres of existing roadway/ tracks requiring upgrading and approx. 3.8 kilometres of new access road to be constructed.

There are 23 no. occupied dwellings within 1km of the Proposed Turbines, with 6 no. of those dwellings belonging to landowners who form part of the Proposed Project. The closest third party dwelling is located approximately 578 metres from the nearest proposed turbine location. There are no third party inhabitable dwellings located closer than four times the maximum turbine tip height (i.e. within 700 metres) of the Proposed Turbines.

1.6 Need for the Proposed Project

1.6.1 Overview

In July 2021, the Climate Action and Low Carbon Development (Amendment) Act 2021 was signed into law, committing Ireland to reach a legally binding target of net-zero emissions no later than 2050, and a cut of 51% by 2030 (compared to 2018 levels). On this pathway to decarbonisation, the Government published the Climate Action Plan 2025 (CAP25)⁶ reaffirming the renewable electricity target of 80% by 2030, without compromising security of energy supply. The Proposed Project is expected to be operational before 2030 and would therefore contribute to this 2030 target.

In July 2025 the EPA published ‘Ireland’s Provisional Greenhouse Gas Emissions 1990-2024’⁷ which stated a provisional total of national greenhouse gas emissions (excluding Land Use, Land Use Change and Forestry (LULUCF)) for 2024 to be 53.75 million tonnes carbon dioxide equivalent (MtCO₂e) which is 2% lower than emissions in 2023 (55.01 MtCO₂e). Ireland’s 2024 emissions were below the 1990 baseline for the second consecutive year.

In 2024, the energy industries, transport and agriculture sectors accounted for 73% of total greenhouse gas emissions. Agriculture is the single largest contributor to the overall emissions, at 38%. Transport, energy industries and the residential sector are the next largest contributors, at 21.7%, 13.3% and 10.4%, respectively. The report further states that renewables provided 1.3% more electricity in 2024 but, due to increasing demand, there was a decrease in the renewable share in electricity generation from 40.7% in 2023 to 39.6% in 2024, with wind accounting for 31.7% of electricity supply (down from 33.7%). Natural gas accounted for 42.1% of electricity generated in 2024, with coal and oil together accounting for 3.4% of electricity generated. The report highlights that whilst emissions are beginning to reduce, transformative measures will be needed to meet national climate ambitions.

Despite the progress in 2024 noted above, Ireland continues to face highly complex climate challenges, as detailed in a more recent EPA publication from July 2024 titled ‘Ireland’s State of the Environment Report 2024’⁸. This report states that “Ireland has set a national objective to transition by 2050 to a climate-resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy. Achieving this multifaceted objective will be the most complex and interconnected societal challenge for the next 25 years, and each step towards its achievement will present opportunities and challenges. Efficiencies will not get us there. Incrementalism will not get us there. Collectively we must shift our society to a sustainable trajectory.” The report further notes that the overall current assessment for climate in Ireland is ‘poor’ and “largely not on track to meet policy objectives and targets” and urges the full

⁶ Department of Environment, Climate and Communications (2025) Climate Action Plan 2025

⁷ Ireland's Provisional Greenhouse Gas Emissions (1990-2024) <<https://www.epa.ie/publications/monitoring-assessment/climate-change/air-emissions/EPA-Provisional-1990-2024-GHG-Report-1716.pdf>>

⁸ <https://www.epa.ie/publications/monitoring-assessment/assessment/state-of-the-environment/EPA-SOE-Report-2024-BOOK-LOWRES.pdf>

implementation of actions set out in the Climate Action Plan 2025 in addition to various other actions, for Ireland to have any chance of meeting its 2030 and 2050 climate targets. According to a SEAI report⁹ published in November 2024, there are significant projected gaps to all legally binding targets in Ireland, including national carbon budgets and sectoral emissions ceilings, and EU obligations on renewable energy, energy efficiency and greenhouse gas emissions. The report highlights the risks faced over the delayed achievement of the majority of Climate Action Plan targets, including renewable electricity, and that “*actions to address these risks are critically important*”.

It is noteworthy that numerous sources have made it clear that based on our current trajectory, Ireland will fall short on our legally binding renewable energy targets. For example, an opinion published by the European Commission in February 2024¹⁰ indicated that Ireland is projected to fall short of the target of 43% of energy coming from renewable sources. While that figure in 2021 was 12.5%, Ireland’s target of 31.4% is “*significantly below the share of 43% resulting from the formula in Annex II of Regulation (EU) 2018/1999 on the Governance Regulation of the Energy Union and Climate Action (‘Governance Regulation’)*”.

The critical need for renewable energy is underscored by European legislation. Renewable Energy Directive (RED) III¹¹ contains a presumption in favour of renewable projects being in the ‘*overriding public interest and serving public health and safety*’. This presumption was introduced prior to the enactment of RED III in the Council Regulation (EU) 2022/2577 (laying down a framework to accelerate the deployment of renewable energy) detailed below in Section 1.5.2.2. The prioritisation of renewable energy projects in European law has been acknowledged by the Irish judicial system, most recently in the Carrownagowan Wind Farm judgement ([2024] IEHC 549), the Toole II judgment ([2024] IEHC 610) and in particular the Coolglass Wind Farm judgement ([2025] IEHC 1)¹² which emphasises the importance of national climate and renewable energy policy when assessing renewable energy projects. RED III was transposed into Irish Law in August 2025.

As such, the Proposed Project is critical to helping Ireland address these challenges as well as addressing the country’s over-dependence on imported fossil fuels. The need for the Proposed Project is driven by the following factors:

1. *A legal commitment from Ireland to limit greenhouse gas emissions under the Kyoto protocol to reduce global warming;*
2. *A requirement to increase Ireland’s national energy security as set out in Ireland’s Transition to a Low Carbon Energy Future 2015-2030.*
3. *A requirement to diversify Ireland’s energy sources, with a view to achievement of national renewable energy targets and an avoidance of significant fines from the EU (the EU Renewables Directive);*
4. *Climate Action Plan 2025 which aims to ensure that Ireland achieves its legally binding target (the Climate Action and Low Carbon Development (Amendment) Act 2021) of net-zero greenhouse gas emissions no later than 2050, and a reduction of 51% by 2030;*
5. *Increasing energy price stability in Ireland through reducing an over reliance on imported fossil fuels;*
6. *Provision of cost-effective power production for Ireland which would deliver local benefits; and*
7. *To facilitate the Government in meeting its ambitious 80% renewable energy target by 2030.*

⁹ <https://www.seai.ie/sites/default/files/publications/National-Energy-Projections-Report-2024.pdf>

¹⁰ https://commission.europa.eu/publications/commission-recommendation-assessment-swd-and-factsheet-draft-updated-national-energy-and-climate-20_en

¹¹ Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652.

¹² https://admin.climatecasechart.com/wp-content/uploads/non-us-case-documents/2025/20250110_88777_judgment.pdf?password-protected=&login&redirect_to=https%3A%2F%2Fadmin.climatecasechart.com%2Fwp-content%2Fuploads%2Fnon-us-case-documents%2F2025%2F20250110_88777_judgment.pdf

These factors are addressed in further detail below. Section 2.1 of Chapter 2: Background to the Proposed Project, presents a full description of the international and national renewable energy policy context for the Proposed Project. Section 2.2 addresses climate change, including Ireland's current status with regard to meeting greenhouse gas emission reduction targets.

In November 2025, the World Meteorological Organisation (WMO) published the *'State of the Climate Update for COP30'*.¹³ The report provides a summary on the state of the climate indicators in 2025, between January and August, with sections on key climate indicators, extreme events and impacts. The key messages in the report include:

- Greenhouse gases reached record observed levels in 2024 and continue to rise in 2025.
- January – August 2025 global mean surface air temperature was $1.42\text{ }^{\circ}\text{C} \pm 0.12\text{ }^{\circ}\text{C}$ above the pre-industrial average.
- In the hydrological year 2023/2024, glaciers lost an observed record 1.3 metres water equivalent of ice. The hydrological year 2023/2024 was the third consecutive year that all monitored glaciated regions around the world recorded net mass loss.
- Arctic sea-ice extent in March 2025 was the lowest annual maximum in the satellite record. Antarctic sea-ice extent has remained well below average throughout 2025 to date.
- Weather- and climate-related extreme events to August 2025 had cascading impacts on lives, livelihoods and food systems, and contributed to displacement across multiple regions, undermining sustainable development.

Following this in March 2026, the WMO published the *'State of the Global Climate 2025'*¹⁴ which contains the following key messages:

- The period 2015-2025 was the warmest 11 years since observations started.
- 2025 was the second or third warmest year (depending on the dataset) in the 176-year observational record, reflecting the shift to La Niña conditions that temporarily cool the planet. The annually averaged global near-surface temperature was about $1.43 \pm 0.13\text{ }^{\circ}\text{C}$ above the 1850–1900 pre-industrial average.
- The Earth's energy imbalance has increased since its observational record began in 1960, particularly over the last 20 years. It reached a new high in 2025.
- The Earth's oceans have been absorbing approximately eighteen times the annual human energy use each year for the past two decades. Despite La Niña conditions, around 90% of the ocean surface area experienced at least one marine heatwave in 2025. There is very high confidence that present-day ocean surface pH values are unprecedented for at least 26,000 years.
- Extreme weather impacts millions globally and costs billions.

There has been a substantial worldwide energy transition, with renewable capacity additions increasing by nearly 60% from 2022, totalling 510 gigawatts (GW).¹⁵ This growth represents the highest rate observed in the past two decades, signalling a significant momentum toward achieving the clean energy goal set at the United Nations Framework Convention on Climate Change (UNFCCC) 28th Conference of the Parties (COP28) meeting in 2023, and reiterated at the 29th Conference of the Parties (COP29) in Azerbaijan in 2024, to triple renewable energy capacity globally to 11,000 GW by 2030. Considering existing policies and market conditions, the International Energy Agency (IEA) predicts that there will be approximately 5,500GW of new renewable capacity becoming operational by 2030. This implies that global renewable capacity additions will continue to increase every year, reaching almost 940GW

¹³ World Meteorological Organisation (2025) *State of the Climate Update for COP30* <<https://wmo.int/publication-series/state-of-climate-update-cop30>>

¹⁴ World Meteorological Organisation (2026) *State of the Global Climate 2025* <https://library.wmo.int/viewer/69807/download?file=WMO-1391-2025_en.pdf&type=pdf&navigator=1>

¹⁵ IEA (2024), *Renewables 2023, IEA, Paris* <<https://www.iea.org/reports/renewables-2023>>

annually by 2030 – 70% more than the record level achieved last year. Solar PV and wind together account for 95% of all renewable capacity growth through the end of this decade due their growing economic attractiveness in almost all countries.

The recent joint publication of WMO and International Renewable Energy Agency on Climate-driven Global Renewable Energy Potential Resources and Energy Demand in 2023¹⁶ underscores the inherent links between renewable energy resources and weather and climate conditions. It calls for better integration of climate variability considerations into energy resource operation, management, and planning to enhance effectiveness and sustainability in these regions.

1.6.1.1 Climate Change and Greenhouse Gas Emissions

At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal the Paris Agreement. The Paris Agreement sets out a global action plan to avoid dangerous climate change by limiting global warming to well below 2°C above pre-industrial levels. Under the Paris Agreement, the EU and Governments also agreed on the need for global emissions to peak as soon as possible but recognised that this will take longer for developing countries to achieve. More recently, climate conference (COP28) in December 2023 in Dubai resulted in the first agreement explicitly calling for the transition away from fossil fuels, the United Arab Emirates (UAE) Consensus. This text raised concerns over the achievement of limiting warming below 1.5°C, as the text to ‘phase out as soon as possible inefficient fossil fuel subsidies’ does not address energy poverty or the just transition. The UAE Consensus further calls for more explicit near-term goals in the lead up to 2050, calling for the world to cut greenhouse gas emissions by 43% as compared to 2019 levels. In November 2024 (COP29) took place in Azerbaijan in and focused on accelerating global efforts to address climate change, in particular global efforts related to climate finance. The New Collective Quantified Goal on Climate Finance (NCQG) was agreed in the final days of COP29 with developed nations agreeing to triple finance to developing countries, with commitments increasing from USD 100 billion annually to USD 300 billion annually by 2035. Significant progress was made in the discussions surrounding carbon markets, with nearly 200 nations agreeing on critical rules under Article 6 of the Paris Agreement. The adoption of these rules is seen as a crucial step towards operationalising a robust and credible carbon market.

The most recent climate conference (COP30) took place in Belém, Brazil in November 2025 and focused on implementation, aiming to turn the promises of the Paris Agreement and 2023’s Global Stocktake into real action. Adaptation to climate change was a top priority during COP30, whilst countries built on the NCQG agreed as part of COP29, aimed at providing developing countries with support for adaptation. The EU renewed its commitment to the COP28 pledges to transition away from fossil fuels, triple renewable energy capacity and double energy efficiency by 2030, as agreed in Dubai. COP30 also saw the launch and strengthening of several important initiatives, including the establishment of an Open Coalition on Compliance Carbon Markets - a new global effort to improve the effectiveness of carbon pricing and market mechanisms, and two initiatives relating to tropical forests, to fund conservation and reverse deforestation. The decisions taken in Belém are seen to mark a transition from climate promises to real-world implementation.

In March 2021 the government approved the Climate Action and Low Carbon Development (Amendment) Bill which provide plans to facilitate the “*transition to a climate resilient and climate neutral economy by the end of year 2050*”¹⁷ and includes for a 51% reduction in emissions by 2030. Furthermore, government approval was given in February 2021 to draft amendments to the Petroleum and Other Minerals Development Act 1960 which will give statutory effect to ending the issuing of new licences for the exploration and extraction of gas. The Bill, now an Act, was passed into law in July

¹⁶ International Renewable Energy Agency + WMO (2024) 2023 Year in Review: Climate-driven Global Renewable Energy Potential Resources and Energy Demand <<https://wmo.int/publication-series/2023-year-review-climate-driven-global-renewable-energy-potential-resources-and-energy-demand>>

¹⁷ Rialtas na hÉireann 2021. Climate Action and Low Carbon Development (Amendment) Bill 2021 <https://www.gov.ie/en/publication/984d2-climate-action-and-low-carbon-development-amendment-bill-2020/>

2021 and will manage the implementation of a suite of policies to assist in achieving a 7% average yearly reduction in overall greenhouse gas emissions over the next decade.

The Climate Action and Low Carbon Development (Amendment) Act 2021 also outlines the obligations of ACP and/or local authority in assisting the country reach these targets. Section 15 of the Act states as follows:

‘Section 15. F33 (1) A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—

- a) the most recent approved climate action plan,*
- b) the most recent approved national long term climate action strategy,*
- c) the most recent approved national adaptation framework and approved sectoral adaptation plans,*
- d) the furtherance of the national climate objective, and*
- e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.’*

The International Panel on Climate Change (IPCC) put forward its clear assessment in their Fifth Assessment Report¹⁸, that the window for action on climate change is rapidly closing and that renewable energy sources such as wind will have to grow from 30% of global electricity at present to 80% by 2050 if we are to limit global warming to below 2 degrees and in accordance with the COP 21 agreement to limit global warming to well below 2 °C above pre-industrial levels. Former Minister Kelly remarked in 2015 that *“As a nation we must do everything in our power to curb our emissions”*.

In February 2022, the International Panel on Climate Change (IPCC) released the report ‘Working Group II-Climate Change 2022: Impacts, Adaptation and Vulnerability’¹⁹ regarding the impacts of climate change on nature and human activity. The report states that global warming of 1.5 °C and 2 °C will be exceeded during the 21st century unless deep reductions in CO₂ and other greenhouse gas emissions occur in the coming decades. the report identifies four key risks for Europe with most becoming more severe at 2 °C global warming levels (GWL) compared with 1.5 °C GWL. From 3 °C GWL, severe risks remain for many sectors in Europe. The four key risks identified are:

- 1) Key Risk 1: Mortality and morbidity of people and changes in ecosystems due to heat
- 2) Key Risk 2: Heat and drought stress on crops
- 3) Key Risk 3: Water scarcity
- 4) Key Risk 4: Flooding and sea level rise

In April 2022, the IPCC released the report ‘Working Group-III – Climate Change 2022: Mitigation of Climate Change’²⁰, which assesses literature on the scientific, technological, environmental, economic and social aspects of mitigation of climate change. The report reflects new findings in the relevant literature and builds on previous IPCC reports, including the WGIII contribution to the IPCC’s Fifth Assessment Report (AR5), the WGI and WGII contributions to Sixth Assessment Report (AR6) and the three Special Reports in the Sixth Assessment cycle. This report outlines developments in emission reduction and mitigation efforts, assessing the impact of national climate pledges in relation to long-term emissions goals in a global context.; and states that *“Unless there are immediate and deep emissions reductions across all sectors, limiting global warming to 1.5 °C will be beyond reach.”*

In November 2023, the IPCC published the ‘AR6 Synthesis Report: Climate Change 2023’²¹, and is the final product of the AR6 of the IPCC. It summarizes the state of knowledge of climate change, its

¹⁸ IPCC Fifth Assessment Synthesis Report, Intergovernmental Panel on Climate Change AR5 Report

¹⁹ *Climate Change 2022: Impacts, Adaptation and Vulnerability. Working Group II Contribution to the IPCC Sixth Assessment Report.* Available at: https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf

²⁰ https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf

²¹ *IPCC Sixth Assessment Synthesis Report, Intergovernmental Panel on Climate Change AR6 Report: Climate Change 2023*

widespread impacts and risks, and climate change mitigation and adaptation. It confirms that the unsustainable and unequal energy and land use as well as historical use of fossil fuels have unequivocally caused global warming, with global temperatures approximately 1.1°C above 1850-1900 levels. A substantial ‘emissions gap’ exists between global greenhouse gas emissions in 2030 associated with the implementation of NDCs announced prior to COP26, Parties to the Paris Agreement have two years to submit updated NDCs for the period up to 2035, ambition will need to be ratcheted up in order to limit warming to 1.5°C.

In May 2025, the EPA²² reported, for the 2023 year, that the energy sector contributed to 14.3% of Ireland's total emissions. The latest EPA projections show that currently implemented policies and measures (WEM) will result in Ireland achieving a total greenhouse gas emission reduction of 9.5% on 2005 levels by 2030, significantly short of Ireland's 2030 target under the EU Effort Sharing Regulation (ESR), i.e., 42% reduction of emissions compared to 2005 levels by 2030, and higher than the 9% reduction projected in the 2024 report.²³ If policies and measures in the higher ambition (WAM) scenario are implemented, EPA projections show that Ireland can achieve a reduction of 21.7% by 2030, still short of the 42% reduction target and also lower than the 25% reduction projected in last year's estimates. The EPA projections show that agriculture and transport emissions form the majority of ESR emissions. Decarbonisation of power generation is a key measure, not only in the energy sector, but for other energy intensive sectors, such as transport and agriculture, whose activities result in high levels of greenhouse gas emissions.

The ‘*Energy in Ireland 2025 Report*’²⁴ published by the Sustainable Energy Authority of Ireland (SEAI), states that in 2024, 45.3% of all energy used in Ireland was from fossil fuels, whilst renewable generation accounted for 40.0%, (11.65% of which was from wind energy), and the remainder from others such as waste and electricity imports. As stated therein, the share of fossil fuel use in industry is projected to still be close to 50% by 2030, which would fall short of the CAP target to reduce the share to 23-40% by this date.

According to the ‘*National Energy Projections 2025*’²⁵, published annually by the Sustainable Energy Authority of Ireland (SEAI), by 2030, fossil fuels could still provide a significant portion of Ireland's energy, with Renewable Energy Share in Electricity (RES-E) estimated to range from 60% in the WEM scenario to 68% in the most ambitious WAM scenario. The deployment of renewables needs to outpace the growth of energy demand for the absolute reductions in greenhouse gas emissions that are required to be met. The SEAI National Energy Projections state that there was a notable reduction in greenhouse gas emissions from the electricity sector in 2024; ‘*Ireland's national energy-related emissions in 2024 were at a record low - their lowest level in over 30 years*’. This reduction in fossil fuel use was primarily driven by an overall decrease in indigenous generation of electricity in Ireland, a decrease in indigenous generation of electricity from fossil fuels, and an increase in electricity imports with 2024 seeing a record level of electricity net imports. Over the four years of the first budget period, the total electricity sectoral emissions were 34.1MtCO₂eq, meaning that remaining budget is 5.89MtCO₂eq for 2025, which, if met, will result in the sectoral emissions ceiling (SEC) for electricity for the first carbon budget period being achieved, but is estimated to overshoot by 0.6 MtCO₂eq of emissions. However, the electricity sectors SEC in the second carbon budget (2026-2030) is 20 MtCO₂eq – precisely half of that in the first budget – which is equivalent to a nominal annual emission of just 4.0 MtCO₂eq. The second carbon budget electricity sectoral ceiling is projected to be exceeded by 2.0 MtCO₂eq or 3.3% in WAM scenario, and 4.0 MtCO₂eq or 6.6% in the WEM scenario. While overall energy-related emissions have fallen steadily in recent years, SEAI's National Energy Projections report 2025 indicates

²² Ireland's Greenhouse Gas Emission Projections 2024-2055 <<https://www.epa.ie/publications/monitoring-assessment/climate-change/air-emissions/07875-EPA-GHG-Projections-Report-FINAL.pdf>>

²³ Irelands Greenhouse Gas Emission Projections 2022-2024 (June 2023) <https://www.epa.ie/publications/monitoring-assessment/climate-change/air-emissions/EPA-GHG-Projections-2022-2040_Finalv2.pdf>

²⁴ SEAI (December 2025) Energy in Ireland 2025 Report <<https://www.seai.ie/sites/default/files/publications/Energy-in-Ireland-2025.pdf>>

²⁵ SEAI National Energy Projections 2025 Report. <<https://www.seai.ie/sites/default/files/publications/National-Energy-Projections-Report-2025.pdf>>

that the pace of these reductions is not yet sufficient to deliver on Ireland’s legally binding carbon budgets, even under the most optimistic scenarios considered under SEAI’s modelling.

CAP 25²⁶ was published in April 2025 by the Department of Climate, Energy and the Environment. Following on from Climate Action Plans 2019²⁷, 2021²⁸, 2023²⁹, and 2024³⁰, CAP 25 sets out the roadmap to deliver on Ireland’s climate ambition. It aligns with the legally binding economy-wide carbon budgets and sectoral ceilings that were agreed by Government in July 2022 following the Climate Action and Low Carbon Development (Amendment) Act 2021, which commits Ireland to a legally binding target of net-zero greenhouse gas emissions no later than 2050, and the reduction of 51% by 2030 mentioned above. The CAP 25 sets out an ambitious course of action over the coming years to address the impacts which climate may have on Ireland’s environment, society, economic and natural resources. CAP 25 clearly recognises that Ireland must significantly step up its commitments to tackle climate disruption. The CAP 25 identifies the need to increase the share of electricity demand generated from renewable sources by up to 80% where achievable and cost effective, without compromising security of electricity supply. The CAP also reaffirms targets for renewable electricity deployment of 9 GW of onshore wind capacity by 2030. In 2023, Ireland had 4.74GW of installed wind capacity, up 4.5% on the previous year. As of December 2025, Ireland’s installed capacity for wind generation in December 2025 was over 5GW, according to Wind Energy Ireland reporting³¹.

CAP 25 presents clear and unequivocal support for the provision of additional renewable energy generation and presents yet further policy support for increased wind energy.

CAP 25 has set out the following targets for electricity generation and transmission:

- Share of electricity demand generated from **renewable sources to up to 80%** where achievable and cost effective, without compromising security of electricity supply;
 - Onshore Wind Capacity: 9GW
 - Offshore Wind Capacity: 5GW (minimum)
 - Solar PV Capacity: 8GW
 - Ensure that 20-30% of system demand is flexible by 2030;
 - Ensure electricity generation grid connection policies and regular rounds of connection offers which facilitate timely connecting of renewables, provides a locational signal and supports flexible technologies;

It is estimated that the Proposed Project, with an estimated installed capacity of 54MW (based on a 6MW turbine model) will result in the net displacement of approximately 34, 791 tonnes of Carbon Dioxide (CO₂) per annum. The carbon offsets resulting from the Proposed Project are described in detail in Chapter 11: Climate.

1.6.2 Energy Security

At a national level, Ireland currently has one of the highest external dependencies on imported sources. In August 2025 the SEAI published ‘Ireland’s Energy Supply and Security of Supply in 2024’³², which identifies that in 2024, Ireland’s national primary energy requirement remained heavily fossil dependent, with 81.4% of energy requirement satisfied by fossil fuels, reducing by only 1.4% from 2023 figures. Conversely, 2024 saw record high use of renewable energy in Ireland, with 14.5% of the national

²⁶ Government of Ireland (2025) https://assets.gov.ie/static/documents/Climate_Action_Plan_2025_updated_cover.pdf

²⁷ <https://assets.gov.ie/static/documents/climate-action-plan-2019-361e117f27de-4060-ad45-62f4438ee840.pdf>

²⁸ <https://assets.gov.ie/static/documents/climate-action-plan-2021-833aad8a-2afa-4894-9c6e-f2ff1f076c98.pdf>

²⁹ <https://assets.gov.ie/static/documents/climate-action-plan-2023-8b7dba92-f397-4163-8293-3aea656f6b5f.pdf>

³⁰ <https://assets.gov.ie/static/documents/climate-action-plan-2024-8ccbde73-e288-4241-8b26-6b4922389f25.pdf>

³¹ Wind Energy Ireland (February 2026) Wind Energy Report Annual & December 2025

<<https://windenergyireland.com/blog/irish-wind-farms-provided-a-third-of-our-power-in-2025>>

³² SEAI (August 2025) Ireland’s Energy Supply and Security of Supply in 2024 <<https://www.seai.ie/data-and-insights/seai-statistics/kev-publications/energy-supply-security>>

energy requirement satisfied by renewables, an increase of 0.5% from 2023. Overall, Ireland's total primary energy requirement in 2024 was 168.0 TWh, a 4.19 TWh (2.6%) increase from 2023 figures, with energy requirements predicted to continue to increase in the coming years. The Department of the Environment, Climate and Communications (DECC) report '*Energy Security in Ireland to 2030*'³³ states that '*Ireland's future energy will be secure by moving from an oil-, peat-, coal-, and gas-based energy system to an electricity-led system, maximising our renewable energy potential flexibility and being integrated in Europe's energy systems.*' The DECC report proposes a package of a wide range of measures to implement to 2030 to improve Ireland's energy security. Ireland is currently one of the most energy import dependent countries in the EU, having imported 79.7% of its energy supply in 2024.³⁴

The '*Energy Security in Ireland to 2030*' report provides a roadmap to energy security in Ireland, on the basis of current energy policies and project and to implement the measures proposed as part of the energy security package. EirGrid in their '*Ten-Year Generation Capacity Statement 2023 - 2032*'³⁵ (January 2024), states that new wind farms commissioned in Ireland in 2022 brought total wind installed capacity to over 4,500MW, contributing to the overall RES-E percentage of 36.8% with wind energy accounting for 32.9%. Prior to 2015, Ireland's import dependency of energy was over 90% but dropped to 71% in 2016 with the Corrib gas field starting production. Since 2018, Ireland's import dependency has been increasing as the output from the Corrib gas field reduces faster than we are adding new renewable sources.

In December 2025 the SEAI published their '*Energy in Ireland 2025 Report*'³⁶, stating that energy related emissions in 2024 were at their lowest level in over 30 years. Energy related emissions in 2024 were 30.9 MtCO₂eq, down 0.47 MtCO₂eq or 1.5% on 2023-levels. In 2024, electricity accounted for just over one fifth (22.5%) of energy-related emissions, with transport accounting for a further 37.7%. Heat emissions accounted for the remaining 39.8%. The net reduction of overall emissions came from a 0.63 MtCO₂eq (-8.3%) drop in electricity emissions, a 0.29 MtCO₂eq (+2.4%) increase in heat emissions, and a 0.14 MtCO₂eq (-1.2%) decrease in transport emissions. In 2024, Ireland generated 11.65 TWh of renewable energy from wind generation, a drop of 0.05 TWh from the previous year. In exceeding the previous record of 11.6 TWh set in 2020 by 0.1 TWh. Currently, the SEAI website has a published value of 204.3gCO₂/kWh for electricity generation and 226.3gCO₂/kWh for electricity consumption³⁷. When all data from 2024/2025 is recorded, an updated carbon intensity factor for the Irish national grid will be published.

Electricity demand in Ireland was 32.9 TWh, up 1.29 TWh or 4.1% on the previous year. This net-increase was strongly led by a 0.74 TWh or 5.8% increase in demand from the commercial services sector, which includes data centres. The Energy in Ireland 2025 Report states: '*(Ireland) must accelerate delivery of renewables and major infrastructure such as grid enhancements, public transport and district heating.*'

Ireland continues to be hugely energy import-dependent leaving it exposed to large energy price fluctuations as a minimum and possibility of fuel shortages if a major energy crisis were to occur. The international fossil fuel market is growing increasingly expensive and is increasingly affected by international politics which can add to price fluctuations. This volatility will be increased as carbon prices increase in the future. This has implications for every Irish citizen.

³³ Department of the Environment, Climate and Communications (2023) *Energy Security in Ireland to 2030*. <<https://assets.gov.ie/276471/2d15ce6d-e555-4ada-a3cf-b325a5d7ba20.pdf>>

³⁴ SEAI (August 2025) *Ireland's Energy Supply and Security of Supply in 2024* <<https://www.seai.ie/data-and-insights/seai-statistics/key-publications/energy-supply-security>>

³⁵ <https://cms.eirgrid.ie/sites/default/files/publications/19035-EirGrid-Generation-Capacity-Statement-Combined-2023-V5-Jan-2024.pdf>

³⁶ Sustainable Energy Authority Ireland (2025) *Energy in Ireland 2025 Report* <<https://www.seai.ie/sites/default/files/publications/Energy-in-Ireland-2025.pdf>>

³⁷ <https://www.seai.ie/data-and-insights/seai-statistics/conversion-factors/>

The SEAI has stated that Ireland’s heavy dependence on imported fossil fuels, *“is a lost opportunity in terms of keeping this money here in Ireland and further developing our abundant renewable resources”*³⁸.

The cost of carbon credits is included in all electricity traded, and the price of electricity generated by coal is particularly vulnerable due to its high carbon emissions per unit of electricity generated. Coal and peat generate almost 3% of Ireland’s electricity, while gas generates 29.6%, and oil generates 48.9%. At a time when the energy system is under severe pressure to ensure security of supply, amid projections of rapid electricity demand growth over the coming decade, any steps to reduce Ireland’s dependence on imported fossil fuels will add to financial autonomy and stability in Ireland. The use of Ireland’s indigenous energy resources, such as wind, will contribute to a reduction in energy imports.

The Energy White Paper 2015³⁹ (‘the White Paper’) notes “There will be a substantial increase in the cost of carbon in the short and medium term, through the EU Emissions Trading Scheme”. Any steps to reduce dependence on imported fossil fuels will add to financial autonomy and stability in Ireland. As the White Paper notes:

“In the longer term, fossil fuels will be largely replaced by renewable sources”.

1.6.2.1 REPowerEU

In a Communication from the European Parliament on Joint European Action for more affordable, secure and sustainable energy⁴⁰, the European Commission proposed an outline of a plan to make Europe independent from Russian fossil fuels well before 2030 in light of Russia's invasion of Ukraine. Commission President Ursula von der Leyen stated:

“We must become independent from Russian oil, coal and gas. We simply cannot rely on a supplier who explicitly threatens us. We need to act now to mitigate the impact of rising energy prices, diversify our gas supply for next winter and accelerate the clean energy transition. The quicker we switch to renewables and hydrogen, combined with more energy efficiency, the quicker we will be truly independent and master our energy system.”

In May 2022, the EU published the REPowerEU Plan⁴¹ in light of Russia’s invasion of Ukraine in February 2022. The core purpose of the plan, in addition to accelerating the EU’s transition from the use of fossil fuel to renewable energy sources, is to end the dependence on Russian fossil fuels.

In April 2022, the Government published the National Energy Security Framework (NESF) providing a single overarching and initial response to address Ireland’s energy security needs in the context of the war in Ukraine. This framework mirrors that of the EU, in which accelerating Ireland’s transition from the use of fossil fuel to renewable energy sources is a key objective.

1.6.2.2 Council Regulation (EU) 2022/2577 and 2024/223

Arising from REPowerEU, Council Regulation (EU) 2022/2577 laying down a framework to accelerate the deployment of renewable energy was adopted on the 22 December 2022. Regulation 2022/2577 came into effect on the 23 December 2022 until the 30 June 2024. The Regulation made provision for a review by the commission within 12 months. Following this review the Council introduced Regulation 2024/223 on the 22 December 2023 amending Regulation 2022/2577. Regulation 2022/2577 and

³⁸ Dr Eimear Cotter, Head of Low Carbon Technologies, SEAI - “Energy Security in Ireland 2015”

³⁹ Ireland’s Transition to a Low Carbon Energy Future 2015-2030 (Department of Communications, Energy & Natural Resources, 2015)

⁴⁰ European Commission (March 2022) REPowerEU: Joint European Action for more affordable, secure and sustainable energy. Strasbourg. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1511

⁴¹ https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

2024/223 recognises the relative importance of renewable energy deployment in the current difficult energy context and provides significant policy and legislative support to enabling renewable energy projects.

Article 2(2) of Regulation EU 2022/2577 requires priority to be given to projects that are recognised as being of overriding public interest whenever the balancing of legal interests is required in individual cases and where those projects introduce additional compensation requirements for species protection. An analogous provision is not present in Directive (EU) 2018/2001. The first sentence of Article 3(2) of Regulation (EU) 2022/2577 has the potential, in the current urgent and still unstable energy situation on the energy market which the Union is facing, to further accelerate renewable energy projects since it requires Member States to promote those renewable energy projects by giving them priority when dealing with different conflicting interests beyond environmental matters in the context of Member States' planning and the permit-granting process. The Commission's report demonstrated the value of the first sentence of Article 3(2) of Regulation (EU) 2022/2577 which beyond the specific objectives of the derogations foreseen in the Directives referred to in Article 3(1) of Regulation (EU) 2022/2577. (emphasis added).

Further detail is provided in Section 2.3.1 in Chapter 2: Background to the Proposed Project. As such, the Proposed Project, a renewable energy project, is critical to helping Ireland, and the EU in addressing energy security challenges as well as addressing the country's over-dependence on imported fossil fuels.

1.6.3 Competitiveness of Wind Energy

While Ireland has a range of renewable resources, as the White Paper states “[Onshore Wind] is a proven technology and Ireland's abundant wind resource means that a wind generator in Ireland generates more electricity than similar installations in other countries. This results in a lower cost of support”.

In fact, the cost of support is more than offset by the fact that adding large quantities of wind to the wholesale market drives down auction prices in any half hour trading period when the wind is blowing, i.e. for 80% of the hours of the year. Wind has a capacity factor of approx. 35%, which is its average output throughout the year relative to its maximum output. However, wind is generating power at some level for 80% of the hours of the year. A Pöyry study from 2015 showed that reaching our targets in 2020 would reduce wholesale prices by more than costs of new grid infrastructure, backup and the subsidies paid to wind, resulting in a net saving of €43m per year in 2020. The EU has noted that Ireland has one of the lowest costs of supporting renewables mainly because onshore wind is on a par with the cost of power from conventional generation when a full cost-benefit analysis is undertaken.

1.6.4 European Renewable Energy Policy and Targets

1.6.4.1 Renewable Energy Directive

The burning of fossil fuels for energy creates greenhouse gases, which contribute significantly to climate change. These and other emissions also create acid rain and air pollution. Sources of renewable energy that are utilised locally with minimal impact on the environment are necessary to meet the challenges of the future. The EU adopted Directive (2018/2001 EU)⁴² on the Promotion of the Use of Energy from Renewable Sources in December 2018 which sets EU 2030 Renewable Energy Targets.

⁴² European Union 2018 Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast) < <https://eur-lex.europa.eu/eli/dir/2018/2001/oj/eng> >

The Directive sets a legally binding mandatory national target for the overall share of energy from renewable sources for each Member State. This package is designed to achieve the EU's overall 20:20:20 environmental target, which consists of a 20% reduction in greenhouse gases, a 20% share of renewable energy in the EU's total energy consumption and a 20% increase in energy efficiency by 2020. To ensure that the mandatory national targets are achieved, Member States must follow an indicative trajectory towards the achievement of their target as outlined in Ireland's National Renewable Energy Action Plan (NREAP).

The first Renewable Energy Directive (RED)⁴³ is legislation that influenced the growth of renewable energy in the EU and Ireland for the decade ending in 2020. From 2021, RED was replaced by the second Renewable Energy Directive (RED II),⁴⁴ which continues to promote the growth of renewable energy out to 2030. Ireland's mandatory national target for 2020 was to supply 16% of its overall energy needs from renewable sources. This target covered energy in the form of electricity (RES-E), heat (RES-H) and transport fuels (RES-T). Ireland fell just short of this target with total GFC reaching 13.5%. RED II introduced a binding EU-wide target for overall RES of 32% in 2030 and requires Member States to set their national contributions to the EU-wide target. As per the National Energy and Climate Plan (NECP) 2021-2030, Ireland's overall RES target is 34.1% in 2030⁴⁵.

Under RED, the RES-E target was for 40% of gross electricity consumption to come from renewable sources in 2020. The actual RES-E achieved in 2020 by Ireland was 39.1%, falling just short of the national target. Under RED II, Ireland's National Energy and Climate Plan 2021-2030 included a planned RES-E of 70% in 2030, which has been replaced by the 80% by 2030 RES-E target as detailed in the more recent CAP24, which will ensure that renewable electricity continues to form the backbone of Irish renewable energy use for the coming decade and beyond.

In November 2023, a revision of the Renewable Energy Directive (RED III), came into force. RED III increases the EU wide renewable energy target from 32% set under the previous revision of the directive to at least 42.5%, with an ambition to reach 45% by 2030⁴⁶. Article 3(4a) of RED III requires Member States to establish a framework to enable the deployment of renewable energy to a level consistent with its national contribution to the Union's target and at a pace that is consistent with the indicative trajectories in Climate Action Regulation 2018/1999.

Ireland's statutory national climate objective and 2030 targets are aligned with Ireland's obligations under the Paris Agreement and with the European Union's objective to reduce Greenhouse Gas (GHG) emissions by at least 55% by 2030, compared to 1990 levels and to achieve climate neutrality in the European Union by 2050.

1.6.4.2 National Renewable Energy Targets

The Climate Action and Low Carbon Development (Amendment) Act 2021 commits Ireland to reach a legally binding target of net-zero emissions no later than 2050, and a cut of 51% by 2030 (compared to 2018 levels)⁴⁷. Under the 2021 Act, Ireland's national climate objective requires the state to pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy.

⁴³ Directive 2009/28/EC on the promotion of the use of energy from renewable sources. Available from: <https://eur-lex.europa.eu/legalcontent/EN/ALL/?uri=celex%3A32009L0028>

⁴⁴ Directive (EU) 2018/2001 on the promotion of the use of energy from renewable resources (recast). Available from: <https://eurlex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32018L2001>

⁴⁵ Department of the Environment, Climate and Communications 2024, < <https://www.gov.ie/en/department-of-the-environment-climate-and-communications/publications/national-energy-and-climate-plan-necp-2021-2030/> >

⁴⁶ European Commission 2023 Renewable Energy Directive < https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en >

⁴⁷ *Ibid.*

Ireland's statutory national climate objective and 2030 targets are aligned with Ireland's obligations under the Paris Agreement and with the European Union's objective to reduce GHG emissions by at least 55% by 2030, compared to 1990 levels and to achieve climate neutrality in the European Union by 2050.

In April 2025, the Government published the most recent Climate Action Plan (CAP25), reaffirming the renewable electricity target of 80% by 2030 for Ireland. This is in line with targets previously announced in the Climate Action Plan 2021, 2023 and 2024.

CAP25 states that in order to meet the required level of emissions reduction by 2030 and the 80% renewable electricity generation target by 2030, the installed generation capacity of onshore wind will need to reach 9GW and at least 5GW of offshore wind. As stated above, in 2023, Ireland had 4.74GW of installed wind capacity, up 4.5% on the previous year; the SEAI provisional estimate for installed wind capacity in 2024 is 4.85GW, based on EirGrid data to the end of August, and ESB-Networks data to the end of September.⁴⁸ Please note, Ireland's installed capacity for wind generation in January 2025 was 5.1GW.⁴⁹ As noted previously, Ireland missed its 2020 renewable energy target of 40% with a renewable share in electricity of 39.1%, and by the end of 2021, Ireland's renewable energy share for electricity generation was 32.5%. With a renewable share of electricity generation at 80% in mind and a target of 9GW installed onshore wind by 2030, it is now more critical than ever that we continue to progress renewable energy development in Ireland so that we are successful in meeting our 2030 targets. Further detail on the EU 2030 targets is noted in Chapter 2: Background to the Proposed Project, Section 2.3.1.

1.6.5 Increasing Energy Consumption

As detailed above, CAP25 identifies a need for 9GW of onshore wind generation in order for Ireland to meet its 2030 targets. CAP25 further identified that the revised National Planning Framework⁵⁰ includes policy support for the development and upgrading of electricity grid infrastructure, the delivery of renewable electricity generation capacity, and the introduction of regional renewable electricity capacity allocations for each of the three Regional Assemblies by 2030. In accordance with the relevant National Policy Objectives, Regional Assemblies and Local Authorities must plan for sufficient wind and solar energy development in order to achieve the targeted regional renewable electricity capacity allocations outlined in the draft National Planning Framework, taking into account factors influencing delivery including attrition rates and changes to energised capacity levels, in addition to current installed energised capacity.⁵¹

In their 'Ten-Year Generation Capacity Statement 2023 - 2032' (January 2024)⁵², EirGrid estimate that installed capacity of wind generation is set to increase to at least 12 GW between onshore and offshore capacity as Ireland endeavours to meet its renewable targets in 2030 and beyond.

Failure to meet Ireland's targets for renewable energy will result in substantial EU sanctions. The Department of Public Expenditure and Reform (DPER) in their report 'Future Expenditure Risks associated with Climate Change/Climate Finance'⁵³ concluded that '*potential costs of purchasing non-Emission Trading Scheme (ETS) GHG compliance for the Irish Exchequer for the 2020 to 2030 period could have a cumulative total in the billions in the absence of any further policy changes*'. If Ireland

⁴⁸ SEAI (December 2024) Energy in Ireland 2024 Report <<https://www.seai.ie/sites/default/files/publications/energy-in-ireland-2024.pdf>>

⁴⁹ EirGrid, <https://www.eirgrid.ie/grid/system-and-renewable-data-reports>

⁵⁰ Department of Housing, Local Government and Heritage (2025) Draft Revision of National Planning Framework <<https://www.gov.ie/en/department-of-housing-local-government-and-heritage/press-releases/draft-revision-of-national-planning-framework-open-for-public-consultation/>>

⁵¹ Ibid.

⁵² <https://cms.eirgrid.ie/sites/default/files/publications/19035-EirGrid-Generation-Capacity-Statement-Combined-2023-V5-Jan-2024.pdf>

⁵³ <https://igees.gov.ie/wp-content/uploads/2013/10/Future-Expenditure-Risks-associated-with-Climate-Change-Climate-Finance1.pdf>

decided to backfill shortfalls in the RES-H target with additional renewable electricity this could significantly reduce these costs.

It is noted that the key driver for electricity demand in Ireland for the next number of years is the connection of large new energy users, such as data centres. This statement notes that *'Large industrial connections normally do not dominate a country's energy demand forecast but this is the case for Ireland at the moment'*. EirGrid analysis shows that demand from data centres could account for 28% of all demand by 2031 in a median demand scenario (accounts for the connection of all 1400MVA of potential demand in the connection process). The median demand scenario is now higher than last year's forecast for high demand, indicating the progression of many data centre projects.

In 2015, IWEA commissioned a study *'Data Centre Implications for Energy Use in Ireland'* which concluded that an extra approx. 1 Gigawatt (GW) of electricity demand could materialise between 2015 and 2020 due to growth in data centres. More recently, data available from Bitpower⁵⁴ at the end of 2021 noted a 25% increase in completed data centre capacity over the past 12 months with a total of 70 operational data centres with a combined total of 900 MW of connected power capacity. Ten new data centres came online between the period of November 2020 and November 2021. The increase in growth of data centres means an increase in electricity demand, with many of the proposed data centres committing to using 100% renewable energy which will result in an increased demand for renewable electricity as detailed above.

In the context of increasing energy demand and prices, uncertainty in energy supply and the effects of climate change, our ability to harness renewable energy such as wind power plays a critical role in creating a sustainable future. The DECC have set a target for Ireland of 80% of total electricity consumption to come from renewable resources by 2030, this target forms part of the Government's strategy to make the green economy a core component of its economic recovery plan for Ireland. It is envisaged that wind energy will provide the largest source of renewable energy in achieving this target, with a target of 9GW onshore wind installed generation capacity and a target of 5GW offshore wind installed generation capacity.

The Department of Communications, Energy & Natural Resources (DCENR) noted in their Draft Bioenergy Plan 2014, that achieving the anticipated renewable energy usage in the three energy sectors will be challenging, with the 12% for renewable heat being particularly so. SEAI estimate that the shortfall could be in the region of 2% to 4% of the 12% RES-H target. Given that individual member states 2030 targets are set at a more challenging level than 2020, fines could persist for an extended number of years, and so the total cost to Ireland could run to billions. For comparison, the entire wholesale electricity market has an annual value of around €3bn.

In the medium-term, with the introduction of electric vehicles and uptake of smart demand such as storage heating and heat pumps, emissions in the heat and transport sector will be substantially reduced. A high renewables electricity system is the foundation of such a transformation.

The White Paper published by DCENR in December 2015 expanded on the vision set out above. It outlines a radical transition to a low carbon future which will involve amongst other things, *'generating our electricity from renewable sources of which we have a plentiful indigenous supply'* and *'Increasing our use of electricity and biogas to heat our homes and fuel our transport'*.

The DCENR confirmed in the publication of the White Paper *'Ireland's Transition to a Low Carbon Future' 2015 – 2030*⁵⁵, that wind is the cheapest form of renewable energy:

⁵⁴ https://bitpower.ie/images/Reports/2021_H1_Report.pdf

⁵⁵ <https://greenbusiness.ie/wp-content/uploads/2015/12/Energy-White-Paper-Dec-2015.pdf>

“(Onshore wind) is a proven technology and Ireland’s abundant wind resource means that a wind generator in Ireland generates more electricity than similar installations in other countries. This results in a lower cost of support.”

EU countries have agreed on a new 2030 Framework for climate and energy, including EU-wide targets and policy objectives for the period between 2020 and 2030. These targets aim to help the EU achieve a more competitive, secure and sustainable energy system and to meet its long-term 2050 greenhouse gas reductions target. It is noted that a binding EU target of 32% for renewable energy by 2030 has been set by the EU 2030 Framework for Climate and Energy, with Ireland confirming its own targets for 2030 as detailed below.

Ireland will therefore have to meet even more demanding climate change and renewable energy supply obligations in order to play its part in achieving the European climate and energy ambitions. As announced in December 2022, the Irish Government have pledged to generate 80% of the country’s electricity supply from renewable sources by 2030. The development of additional indigenous wind energy generating capacity, such as the Proposed Project, will not only help to reduce carbon emissions but will also improve Ireland’s security of energy supply. Such penetration levels of wind are technically and economically feasible once paired with other energy system changes such as increasing electric vehicle penetration and electrification of heat. Further information on the 2030 commitments for Ireland are noted in Chapter 2: Background to the Proposed Project, Section 2.2.

These sources of ‘flexible demand’ allow the system to match intermittent renewable energy resources with minimal extra cost. Additional interconnection is also planned with the UK and France, further assisting in the integration of wind (and in the future solar) on the power system.

A number of alternative energy types have been examined when considering how best to meet this renewable energy target.

In 2014, a report prepared by UK consultant BW Energy for the Rethink Pylons campaign group has suggested that converting Moneypoint generation station (which runs solely on coal) from coal to biomass would have enabled Ireland to meet 2020 renewable energy targets. Dr Brian Motherway, Chief Executive SEAI⁵⁶ refutes this claim. While Dr Motherway agrees that biomass offers benefits and is helping Ireland to move away from fossil fuels, he states that *“the conversion of Moneypoint to biomass has been considered a number of times over the years, including actual trials of small amounts of biomass in the station. However, the technical and economic challenges have proven far greater than some would have us believe”*.

The reason being that the move of Moneypoint from coal to biomass would not entail a clean swap. In fact, *‘to allow for combustion of biomass, a full redesign and rebuild of much of the station would be required’*. In the UK where this has been done, energy generation stations have required significant financial support to make the process viable and with each unit of energy in the UK being worth approx. 13 cents, almost double that of Ireland which is approx. 7 cents, wind energy works out cheaper in Ireland. Also, the amount of biomass required to feed Moneypoint would require 300,000ha of land; an equivalent area of Counties Wexford and Carlow being planted with willow which is far more than Ireland currently produces which means we would need to import.

Importation raises the question; would this be cost effective? As prices are volatile and availability of biomass is difficult to predict Ireland would become dependent on the uncertainty of imported biomass. It is also noted that there will be emissions from transport and distribution. The further the biomass is transported, the greater the greenhouse gas emissions⁵⁷. So, while biomass is currently contributing to a move to renewable energy production, on its own it is not the sole answer to meeting Ireland’s renewable energy targets. Ireland has a legal obligation to diversify its energy sources

⁵⁶ http://www.seai.ie/News_Events/Press_Releases/2014/Biomass-is-a-big-part-of-the-solution-but-not-the-whole-solution.html

⁵⁷ *Sustainability Criteria Options and Impacts for Irish Bioenergy Resources (SEAI 2019)*

requiring the development of renewable energy to avoid substantial fines. It should be noted that Moneypoint ceased burning of coal on the 20th of June 2025 and has converted to the use of Heavy Fuel Oil. It will be used as a back-up, out of market generator that EirGrid can call on when extra generation capacity is needed, to ensure a stable supply of electricity for the Irish market.

The Joint Committee on Climate Action published its cross-party report entitled, ‘*Climate Change: A Cross-Party Consensus for Action*’ (March 2019)⁵⁸. This report highlights the requirements for alternate energy production. More specifically, the report notes that it is currently planned to stop burning coal at Moneypoint by 2025 as well as peat at Bord na Mona and ESB stations by 2030. In April 2025, the DECC published CAP 25 which is the fourth annual update to Ireland’s Climate Action Plan 2019 and the third to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021. CAP 25 notes the need for renewable alternatives to coal and peat. Further information on the Climate Action Plan can be seen in Chapter 2: Background to the Proposed Project.

CAP25 states that as electrification and decarbonisation of other sectors continues, there will be an increase in electricity demand, and a transferring of emissions from those sectors to the electricity sector. The deployment of renewables needs to outpace the growth in energy demand for it to deliver the absolute reductions in greenhouse gas emissions required. Therefore, the timing of the delivery of the renewable energy generation relative to the scale and pace of growth in electricity demand is a critical factor. In the high demand scenario outlined in the Programme for Government, electricity demand will almost double by 2030, while electricity emissions are to be reduced by 60-80% at the same time.

Underlying drivers of changes in electricity demand include:

- Data centres are forecast to continue to grow by up to ~9 TWh in 2030 (~2316% of total demand)
- Transport electricity demand is forecast to grow (~23% p.a.) as a result of fast uptake of EV charging
- Electrical heating in industry will increase by more than 2.5 times in 2030 from 2017 levels
- Building energy efficiency improvements from an extensive retrofit programme will moderate the growth in electricity demand from new heat pumps in buildings

Against this backdrop, the importance of wind energy as the main component of Ireland’s renewable energy development is acknowledged, and wind energy is accepted as the main contributor to meeting the Country’s national climate change and energy supply obligations. Notwithstanding this, it must also be acknowledged that not every part of Ireland is well endowed with wind resources and therefore, not all counties will be able to deliver wind-based renewable energy. Furthermore, whilst it is accepted that there are other renewable energy technologies in operation, for the foreseeable future many areas will be unable to deliver significant renewable energy output. This primarily applies to the more populous areas.

National and international renewable energy and climate change targets must be achieved, and it is crucial that these are appropriately translated and implemented at regional and local levels. Wind farm development and design involves balancing the sometimes-conflicting interests of constraints (e.g., natural and built heritage, human beings, ecological, ground conditions, hydrological, etc.) with visual amenity and the technological/economic requirements/realities of the specific project and turbines. As detailed in Section 1.6.2.2 above, EU Regulation 2022/2577 as amended by Regulation 2024/223⁵⁹ identifies the priority that should be afforded renewable energy development whenever the balancing of legal interests is required in individual cases and where those projects introduce additional

⁵⁸ https://data.oireachtas.ie/te/oireachtas/committee/dail/32/joint_committee_on_climate_action/reports/2019/2019-03-28_report_climate-change-a-cross-party-consensus-for-action_en.pdf

⁵⁹ European Union 2024 Council Regulation (EU) 2024/223 of 22 December 2023 amending Regulation (EU) 2022/2577 laying down a framework to accelerate the deployment of renewable energy <<https://eur-lex.europa.eu/eli/reg/2024/223/oj/eng>>

compensation requirements for species protection. While Article 3(1) of the Regulation is mirrored in Article 16(f) of REDIII, the wider obligation placed on competent authorities engaged in the consenting of renewable energy projects under Article 3(2) of Regulation 2022/2577 is not and as explained in Recital 14 of Regulation 2024/223, is an appropriate additional temporary measure given the particular difficulties which the European Union is currently facing in the supply of energy. In considering applications for the development of such projects planning authorities are obliged to give effect to this legislative imperative.

1.6.6 Reduction of Carbon Emissions and Other Greenhouse Gases

The production of renewable energy from the Proposed Project will assist in achieving the Government's and EU's stated goals of ensuring safe and secure energy supplies, promoting an energy future that is sustainable and competitively priced to consumers whilst combating energy price volatility and the effects of climate change. The White Paper outlines an ambitious greenhouse gas reduction target of between 80% to 95% compared to 1990 levels out to 2050. Furthermore, if national carbon emissions targets are divided out amongst each county, each Local Authority may be responsible for meeting its own targets.

In addition to a reduced dependence on oil and other imported fuels, the generation of electricity from wind power by the Proposed Project will displace approximately 34,791 tonnes of carbon emissions per annum from the largely carbon-based traditional energy mix, the detail of which is presented in Section 11.4.3.2 in Chapter 11: Climate.

The World Health Organisation (WHO) in 2019 estimated that ambient (outdoor) air pollution caused 4.2 million deaths worldwide in 2019.⁶⁰ The Environmental Protection Agency (EPA) report '*Air Quality in Ireland 2023*'⁶¹ noted that in Ireland, the premature deaths attributable to poor air quality are estimated at 1,600 people per annum. The European Environmental Agency (EEA) Report, '*Air Quality in Europe – 2022 Report*'⁶² highlights the negative effects of air pollution on human health. The report assessed that poor air quality in Europe accounted for premature deaths of approximately 238,000 people in the 27 EU Member States in 2021. The estimated impacts on the population in Europe of exposure to NO₂ and O₃ concentrations in 2021 were around 49,000 and 24,000 premature deaths per year, respectively. Of these numbers, 610 deaths due to poor air quality were estimated in Ireland in 2020 with 490 Irish deaths attributed to PM_{2.5}, 50 Irish deaths attributed to nitrogen oxides (NO_x) and 70 Irish deaths attributed to Ozone (O₃). These emissions, along with others, including sulphur oxides (SO_x), are produced during fossil fuel-based electricity generation in various amounts, depending on the fuel and technology used, emissions from industry and power plants, vehicles emissions and transport fuels.

The EEA published a briefing on Europe's Air Quality Status⁶³ in May 2024 and presents the status of concentrations of pollutants in ambient air in 2021 and 2022 for regulated pollutants, in relation to both EU air quality standards and the 2021 WHO guideline levels. The assessment shows that, in spite of constant improvements, exceedances of air quality standards are common across the EU, with concentrations well above the latest WHO recommendations.

⁶⁰ [https://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)

⁶¹ *Air Quality in Ireland Report 2023* <https://www.epa.ie/publications/monitoring-assessment/air/Air_Quality_Report_23_v14.pdf>

⁶² *Air Quality in Europe 2022* <<https://www.eea.europa.eu/publications/air-quality-in-europe-2022>>

⁶³ *EEA (2024) Europe's Air Quality Status 2023* <<https://www.eea.europa.eu/publications/europes-air-quality-status-2023>>

The EPA 2016 report ‘Ireland’s Environment – An Assessment’⁶⁴ states that the pollutants of most concern are NO_x, (the collective term for the gases nitric oxide and nitrogen dioxide, PM (particulate matter) and O₃ (ozone). The EPA 2016 report goes on to state that:

‘Ireland has considerable renewable energy resources, only a fraction of which are utilised to address our energy requirements.

*Wind, ocean, solar, hydro and geothermal energy do not produce greenhouse gas emissions or emissions of air pollutants such as particulates, sulphur dioxide and nitrogen dioxide. Use of these renewable resources can have **considerable co-benefits for human health and ecosystems**. Meeting energy requirements from renewable resources can provide significant economic and employment benefits at local to national scales.’*

The Proposed Project therefore represents an opportunity to further harness Ireland’s significant renewable energy resources, with valuable benefits to air quality and climate and in turn to human health. The consumption of fossil fuels for energy results in the release of particulates, sulphur dioxide and nitrogen dioxide to our air. The use of wind energy, by providing an alternative to electricity derived from coal, oil or gas-fired power stations, results in emission savings of carbon dioxide (CO₂), oxides of nitrogen (NO_x), and sulphur dioxide SO₂, thereby resulting in cleaner air and associated positive health effects.

1.6.7 Economic Benefits

In addition to helping Ireland avoid significant fines and reducing environmentally damaging emissions, the Proposed Project will have significant economic benefits. At a national level, Ireland currently has one of the highest external dependencies on imported sources of energy, such as coal, oil and natural gas. As detailed in the SEAI Report ‘Energy in Ireland 2024 Report’⁶⁵, Ireland has a high import dependence on oil and gas and is essentially a price-taker on these commodities. Ireland’s import dependency decreased slightly from 80% in 2022 to 78% in 2023 due to reduced net imports, which were only partially offset by the reduction in primary energy requirement.⁶⁶ From September 2023 to September 2024, Ireland imported 78% of its gas supply and supplied 22% of its gas supply from indigenous sources.

The ‘Energy in Ireland 2024 Report’ stated that Ireland’s national energy-related emissions in 2023 were at their lowest level in over 30 years with 14.1% of Ireland primary energy being sourced from renewables, the highest value to date. The SEAI estimates electricity emissions to be 7.6MtCO₂e in 2023, down 22% from 2022. Current predictions for 2024 electricity emissions are estimated to be 6.9 MtCO₂e. The 5-year 2021-2025 sectoral emission ceiling for electricity is 40MtCO₂e; therefore, if the SEAI estimate for 2024 electricity emissions are accurate, there will only be 5.9MtCO₂e of emissions available for the electricity sector in 2025.

In April 2021, Wind Energy Ireland published a report produced by KPMG on the ‘Economic Impact of Onshore Wind in Ireland’⁶⁷ stating that Irish wind farms are worth €400 million to the economy every year and it is expected to rise to €550 million by the end of the decade. If Ireland are to achieve the 8,200 MW target set in the Climate Action Plan 2021, the total industrial output across operating and capital activities would rise from 1.1bn in 2020 (from the 4,200 MW installed capacity) to 1.5bn in 2030.

The Proposed Project will be capable of providing electrical energy to approximately 40,546 Irish households with electricity per year, as presented in the calculations in Section 4.4.1.7 of this EIAR.

⁶⁴ Ireland’s Environment – An Assessment (2016) <<https://epawebapp.epa.ie/ebooks/soe2016/files/assets/basic-html/page-1.html#>>

⁶⁵ Ibid.

⁶⁶ SEAI (2024) Energy in Ireland – 2024 <<https://www.seai.ie/sites/default/files/publications/energy-in-ireland-2024.pdf>>

⁶⁷ <<https://windenergyireland.com/images/files/economic-impact-of-onshore-wind-in-ireland.pdf>>

The Proposed Project will help to supply the rising demand for electricity, resulting from renewed economic growth. The EirGrid report ‘*Ten-Year Generation Capacity Statement 2023 – 2032*’ (January 2024) notes that the median electricity demand forecast on the island of Ireland is expected to grow by 29% by 2032 from 2022 levels. Much of this growth is expected to come from new data centres in Ireland.

The 2014 report ‘*The Value of Wind Energy to Ireland*’⁶⁸, published by Póryry, stated that growth of the wind sector in Ireland could support 23,850 jobs (construction and operational phases) by 2030. As of 2020, the wind sector and its supply chain in Ireland supports over 5,000 jobs, with potential to grow to over 7,000 by 2030⁶⁹. The reduction in fuel imports not only benefits security of supply but also creates a net transfer to the Irish economy, potentiality allowing for a saving of almost €671m of expenditure on fuel imports per annum by 2030.

A 2021 MaREI report⁷⁰ includes a prospective view of Ireland’s energy sector in 2050 whereby an additional 25,000 jobs would be created in the development of onshore and offshore wind to meet the zero carbon targets as pledged in the Climate Action and Low Carbon Development Act 2021 discussed in section 1.5.1 above.

Likewise, the Proposed Project will have several significant long-term and short-term benefits for the local economy including job creation, landowner payments, local authority commercial rate payments and a Community Benefit Scheme.

Commercial rate payments from the Proposed Project will be provided to Clare County Council each year, which will be redirected to the provision of public services within Co. Clare. These services include provisions such as road upkeep, fire services, environmental protection, street lighting, footpath maintenance etc. along with other community and cultural support initiatives.

It is estimated that the Proposed Project has the potential to create up to 70 jobs during the construction phase and 3-4 jobs during operational and maintenance phases. During construction, additional indirect employment will be created in the region through the supply of services and materials. There will also be income generated by local employment from the purchase of local services i.e., travel, goods and lodgings. Further details on employment associated with the Proposed Project are presented in Chapter 5 of this EIAR, Population & Human Health.

Should the planning application for the Proposed Project be granted, there would be substantial opportunities available for areas where wind farms and other types of renewable energy developments are located, in the form of Community Gain Funds. Based on the current proposal, a Community Benefit Fund in the region of €5.75 million will be made available over the lifetime of the project. The value of this fund will be directly proportional to the level of installed MWs at the Site and will support and facilitate projects and initiatives including youth, sport and community facilities, schools, educational and training initiatives, and wider amenity, heritage, and environmental projects.

Further details on the proposed Community Benefit Fund proposals are presented in Appendix 2-2 and Section 4.10 in Chapter 4 of this EIAR.

Purpose and Scope of the EIAR

The purpose of this EIAR is to document the current state of the environment on and in the vicinity of the Site and to quantify the likely significant effects of the Proposed Project on the environment. The compilation of this document served to highlight any areas where mitigation measures may be

⁶⁸ <https://windenergyireland.com/images/files/9660bd6b05ed16be59431aa0625855d5f7dca1.pdf>

necessary in order to protect the surrounding environment from the possibility of any negative impacts arising from the Proposed Project.

It is important to distinguish the Environmental Impact Assessment (EIA) to be carried out by ACP, from the EIAR accompanying the planning application. The EIA is the assessment carried out by the competent authority, which includes an examination of the information contained in the EIAR, any supplementary information provided where necessary and any relevant information received through consultation and the formation of a reasoned conclusion by the competent authority on the significant effects on the environment of the Proposed Project. It includes an examination, analysis and evaluation by ACP that identifies, describes and assesses in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 11 of the EIA Directive, the direct and indirect significant effects of the Proposed Project on the following:

- a) *population and human health*
- b) *biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC*
- c) *land, soil, water, air and climate*
- d) *material assets, cultural heritage and the landscape*
- e) *major accidents and natural disasters*
- f) *the interaction between the factors referred to in points (a) to (e)*

The EIAR submitted by the applicant provides the relevant environmental information to enable the EIA to be carried out by the competent authority. The information to be contained in the EIAR is prescribed Article 5 of the revised EIA Directive described in Section 1.3 above.

1.8 Structure and Content of the EIAR

1.8.1 General Structure

This EIAR uses the grouped structure method to describe the existing environment, the potential impacts of the Proposed Project thereon and the proposed mitigation measures. Background information relating to the Proposed Project, scoping and consultation undertaken and a description of the Proposed Project are presented in separate sections. The grouped format sections describe the impacts of the Proposed Project in terms of population and human health, biodiversity, with specific attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EEC; land, soils and geology, water, air quality, climate, noise and vibration, cultural heritage, landscape and visual, material assets such as traffic and transportation, vulnerability to major accidents and natural disasters, together with the interaction of the foregoing and schedule of mitigation and monitoring.

The chapters of this EIAR are as follows:

1. Introduction
2. Background to the Proposed Project
3. Considerations of Reasonable Alternatives
4. Description of the Proposed Project
5. Population and Human Health
6. Biodiversity
7. Birds
8. Land, Soils and Geology
9. Hydrology and Hydrogeology
10. Air Quality
11. Climate
12. Noise and Vibration
13. Landscape and Visual
14. Cultural Heritage

15. Material Assets (including Traffic and Transport, Telecommunications and Aviation)
16. Major Accidents and Natural Disasters
17. Interactions of the Foregoing
18. Schedule of Mitigation Measures

The EIAR also includes a Non-Technical Summary (NTS), which is a condensed and easily comprehensible version of the EIAR document. The NTS is laid out in a similar format to the main EIAR document and comprises a description of the Proposed Project, followed by the existing environment, any likely significant effects of the Proposed Project, and mitigation measures presented in the grouped format.

1.8.2 Description of Likely Significant Effects and Impacts

As stated in the EPA Guidelines an assessment of the likely impacts of a development is a statutory requirement of the EIA process. The statutory criteria for the presentation of the characteristics of potential impacts requires that potential significant impacts are described with reference to the extent, magnitude, complexity, probability, duration, frequency, reversibility and trans-boundary nature (if applicable) of the impact.

The classification of impacts in this EIAR follows the definitions provided in the Glossary of Impacts contained in the EPA Guidelines.

The European Commission 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*’, which have also been consulted.

Table 1-2 presents the glossary of impacts as published in the EPA Guidelines. Standard definitions are provided in this glossary, which permit the evaluation and classification of the quality, significance, duration and type of impacts associated with a proposed project on the receiving environment. The use of pre-existing standardised terms for the classification of impacts ensures that the EIA employs a systematic approach, which can be replicated across all disciplines covered in this EIAR. The consistent application of terminology throughout this EIAR facilitates the assessment of the Proposed Project on the receiving environment.

Table 1-2 Impact Classification Terminology (EPA, 2022)

Impact Characteristic	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	A change which reduces the quality of the environment
Significance of Effects	Imperceptible	An effect capable of measurement but without significant consequences

Impact Characteristic	Term	Description
	Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
	Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities
	Moderate	An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends
	Significant	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
	Very significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment
	Profound	An effect which obliterates sensitive characteristics
Extent & Context of Effects	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 of Effects	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 of Effects	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 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 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

Each impact is described in terms of its quality, significance, duration and type, where possible. A ‘Do-Nothing’ impact is also predicted in respect of each environmental theme in the EIAR. Residual effects are also presented following any impact for which mitigation measures are prescribed. The remaining impact types are presented as required or applicable throughout the EIAR. Any potential interactions between the various aspects of the environment assessed throughout this EIAR are presented in Chapter 17: Interaction of the Foregoing.

1.9 Project Team

1.9.1 Project Team Responsibilities

The companies and staff listed in Table 1-3 were responsible for completion of this EIAR of the Proposed Project. Further details regarding project team members are provided below.

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 principal staff from each company involved in the preparation of this EIAR are summarised in Section 1.8.2 below. Each chapter of this EIAR has been prepared by a competent expert in the subject matter.

Table 1-3 Companies and Staff Responsible for EIAR Completion

Consultants	Principal Staff Involved in Project	EIAR Input
MKO Tuam Road, Galway, H91 VW84	Brian Keville Michael Watson Colm Ryan Sean Creedon Brandon Taylor Ciarán Fitzgerald Muireann Van Nieuwenhove Órla Murphy Sean McCarthy Ronan Dunne Francesca Rowson Shikha Gajula Pat Roberts John Hynes Corey Cannon Caroline Kelly Pádraig Desmond Stephanie Corkery Deepali Mooloo Aoife Joyce Tim Murphy Aran von der Geest Moroney Mark Whelan Andrew McCarthy Dervla O'Dowd Pádraig Cregg Patrick Manley Ciarán McKenna Jack Bousfield Madeline Napier-Ruane Jack Workman Daniel Mulpeter Brian O'Carroll Killian Devereux Joseph O'Brien	Project Managers, Scoping and Consultation, Preparation of Natura Impact Statement, EIAR Sections: <ol style="list-style-type: none"> 1. Introduction 2. Background to the Proposed Project 3. Considerations of Reasonable Alternatives 4. Description of the Proposed Project 5. Population & Human Health 6. Biodiversity 7. Birds 10. Air Quality 11. Climate 13. Landscape & Visual 15. Material Assets (non-Traffic) 16. Major Accidents and Natural Disasters 17. Interaction of the Foregoing 18. Schedule of Mitigation and Monitoring

Consultants	Principal Staff Involved in Project	EIAR Input
	Flora Ballario	
Hydro Environmental Services 22 Lower Main Street Dungarvan Co. Waterford	Michael Gill David Broderick	Drainage Design, Preparation of EIAR Sections: 8. Land, Soils & Geology 9. Hydrology and Hydrogeology
Fehily Timoney & Company The Grainstore Singletons Lane, Bagnelstown, Co. Carlow.	Ian Higgins	Preparation of Peat Stability Assessment and Peat and Spoil Management Plan
AWN The Tecpro Building, Clonshaugh Business & Technology Park, Dublin 17	Miguel Cartuyvels Dermot Blunnie Mike Simms	Baseline Noise Survey, Preparation of EIAR Section 12. Noise and Vibration
Tobar Archaeological Services Saleen Middleton Co. Cork	Miriam Carroll	Preparation of EIAR Section 14. Archaeological, Architectural and Cultural Heritage
Alan Lipscombe Traffic and Transport Consultants Claran, Headford, Co. Galway	Alan Lipscombe	Swept Path Analysis, Preparation of EIAR Section 15. Material Assets - Traffic and Transport

*A Statement of Authority is included in each chapter of this EIAR detailing the experts who contributed to the preparation of this report, identifying for each such expert the part or parts of the report which he or she is responsible for or to which he or she contributed, his or her competence and experience, including relevant qualifications in relation to such parts, and such additional information in relation to his or her expertise that demonstrates the expert's competence in the preparation of the report and ensures its completeness and quality.

1.9.2 Project Team Members

Brian Keville B.Sc. (Env.)

Brian Keville has over 20 years' professional experience as an environmental consultant having graduated from the National University of Ireland, Galway with a first-class honours' degree in Environmental Science. Brian was one of the founding directors of environmental consultancy, Keville & O'Sullivan Associates Ltd., prior to the company merging in 2008 to form McCarthy Keville O'Sullivan Ltd. Brian's professional experience has focused on project and environmental management, and environmental impact assessments. Brian has acted as project manager and lead-consultant on numerous environmental impact assessments, across various Irish counties and planning authority areas. These projects have included large infrastructural projects such as roads, ports and municipal services projects, through to commercial, mixed-use, industrial and renewable energy projects. The majority of

this work has required liaison and co-ordination with government agencies and bodies, technical project teams, sub-consultants and clients.

Michael Watson BA. MA. CEnv. PGeo

Michael Watson is a Director of Environment in MKO. Michael has over 20 years' experience in the environmental sector. Following the completion of his master's degree in environmental resource management, Geography, from National University of Ireland, Maynooth he worked for the Geological Survey of Ireland and then a prominent private environmental & hydrogeological consultancy prior to joining MKO in 2014. Michael's professional experience includes managing Environmental Impact Assessments, EPA License applications, hydrogeological assessments, environmental due diligence and general environmental assessment on behalf of clients in the wind farm, waste management, public sector, commercial and industrial sectors nationally. Michael's key strengths include project strategy advice for a wide range and scale of projects, project management and liaising with the relevant local authorities, Environmental Protection Agency (EPA) and statutory consultees as well as coordinating the project teams and sub-contractors. Michael is a key member of the MKO senior management team and as head of the Environment Team has responsibilities to mentor various grades of team members, foster a positive and promote continuous professional development for employees. Michael also has a Bachelor of Arts Degree in Geography and Economics from NUI Maynooth, is a Member of IEMA, a Chartered Environmentalist (CEnv) and Professional Geologist (PGeo).

Colm Ryan

Colm Ryan is the Planning Director of MKO, Planning & Environmental Consultants, with over 16 years of experience as a planner in both private practice and public sector combined. Prior to joining MKO, Colm worked as a planner with a UK and Ireland based Renewable Energy developer. Colm has also spent part of his career in local authority as a planner with Laois County Council. Colm has significant experience in a wide range of projects and extensive experience in large scale residential, renewables and marine based developments. Colm currently heads up the Planning Division in MKO with responsibility for Planning, Project Management, Health & Safety and Project Communications. Colm holds BA (Hons) in Geography & Irish and Masters in Civic Design Town & Regional Planning. Prior to taking up his position with MKO in May 2017, Colm worked as a Senior Planner with Lightsource Renewable Energy Ltd. and held previous posts with Partnerships for Renewables, South Kesteven District Council, Planning Aid, Frank O Gallachoir & Associates in Bray and Laois County Council. Colm is a chartered town planner with specialist knowledge in renewable energy, mixed use development and residential. Colm's key strengths and areas of expertise are in large scale renewable energy development particularly in the ground mounted solar, delivery of local community engagement processes on contentious planning applications, management of community and developers' interest through the planning process and post or pre-planning due diligence. Since joining MKO as a Senior Planner Colm has been overseeing and managing a wide range of development projects such as large scale solar applications, site feasibility work for potential wind energy projects, large scale housing and mixed use schemes. Within MKO, Colm plays a large role in the management of staff members including several aspects of business development. Colm has proven negotiation skills and stakeholder relationship building across numerous development projects in Ireland and the UK and is a corporate member of the Irish Planning Institute.

Sean Creedon BSc. MSc

Sean Creedon is an Associate Director in the Environment Team at MKO. He leads a team of highly skilled environmental professionals working on EIAR for large-and medium scale Renewable Energy infrastructure. Sean has directed and overseen multiple renewable energy projects across wind, solar, battery and hydrogen as well as a range of thermal and other energy related developments. He has worked on the planning and environmental impact elements within all stages of wind farm project delivery. Sean's professional experience includes the development and management of a portfolio of wind farm developments to the consenting decision. He is a member of the MKO senior management

team. Sean has over 22 years' experience in program and project development, holds an MSc from NUI Galway and a Diploma in Project Management from Institute of Project Management Ireland.

Brandon Taylor M.Sc. B.Sc (Hons)

Brandon Taylor is an Environmental Scientist with over three years of private consultancy experience. Brandon holds a B.Sc (Hons) in Geography from McGill University, and a MSc (Hons) in Coastal & Marine Environments from the University of Galway. Brandon's key skills include scientific research and report writing, particularly in the context of local communities and their interactions with environmental stressors, and geospatial analysis and the application of GIS and remote sensing tools across the fields of renewable energy development, coastal zone management, and education and scientific communication. Since joining MKO, Brandon has been involved in the design and environmental impact assessment (EIA) of multiple large-scale onshore wind energy developments across Ireland, contributing to and managing the production of EIA reports.

Ciarán Fitzgerald B.Sc. (Hons) PG Dip

Ciarán Fitzgerald is an Environmental Scientist who has been working with MKO since June 2024. Ciarán holds a B.Sc. (Honours) in Marine Science from the National University of Ireland Galway and a First-Class Honours PG. Dip in Geographic Information Systems from University College Cork. Ciarán works as part of the Environmental Renewables team as well as a larger multidisciplinary team. Ciarán's role involves undertaking tasks such as report writing, EIAR chapter writing, and QGIS mapping. Prior to joining MKO, Ciarán spent time aboard the research vessel "Celtic Explorer," working as part of a team undertaking chemical water data, pelagic species abundance and sorting, bathymetric GIS mapping, data collection, and report writing. Ciarán's key strengths lie in GIS mapping and communication. Since joining the company, Ciarán has been involved in a range of projects, including onshore wind, offshore wind, and solar, contributing by reviewing EIAR chapters and assisting with project development. Ciarán holds a membership from the Institute of Sustainability and Environmental Professionals (ISEP).

Muireann Van Nieuwenhove

Muireann Van Nieuwenhove is a Graduate Environmental Scientist with MKO. Muireann holds a BA in Geography and French and an MA in Environment, Society and Development from the University of Galway. Muireann has excellent report writing and research skills. She received an award for her Master's thesis and for placing top of her class. She is experienced in qualitative and quantitative data analysis. Muireann's key strengths and areas of expertise include peatland management, report writing and Geographical Information Systems. Within MKO Muireann works as part of a large multi-disciplinary team to produce EIA Reports on the Environmental Renewables team. Muireann has been involved in a number of project since starting in MKO

Órla Murphy

Órla Murphy is a Senior Environmental Scientist with nearly 10 years of experience in private consultancy. Órla holds BSc (Hons) in Geography from Queens University Belfast & a MSc in Environmental Protection and Management from the University of Edinburgh. Prior to taking up her position with MKO in January 2018, Órla worked as an Environmental Project Assistant with ITP Energised in Scotland. Órla's key strengths and areas of expertise are in Environmental Protection and Management, EIA, Project Management, Renewable Energy and Peatland Management, where she has carried out research projects and site work relating to restoration and management of peatland sites in both Scotland and Northern Ireland. On joining MKO Órla has been involved on a range of renewable energy infrastructure projects. In her role as a project manager, Órla works with and co-ordinates large multidisciplinary teams including members from MKO's Environmental, Planning, Ecological and Ornithological departments as well as sub-contractors from

various fields in the preparation and production of EIARs. Within MKO, Órla plays a role in the management of and sharing of knowledge with junior members of staff and works as part of a large multi-disciplinary team to produce EIA Reports.

Sean McCarthy

Sean McCarthy is a Project Director in the Planning Team at MKO with over 10 years of experience in both private practice and local authorities. Sean holds a BSc. (Hons) in Property Studies from ATU and a Masters in Regional & Urban Planning for Heriot Watt University in Edinburgh. Prior to taking up his position with McCarthy Keville O'Sullivan in September 2015, Sean worked as a Planning Officer with the Western Isles Council in Scotland in the UK and prior to that worked as a Graduate Planner with Tipperary County Council. Sean is a chartered member of the Royal Town Planning Institute with extensive experience in renewable energy, residential, commercial, industrial, quarries and healthcare development projects.

Sean has been involved in complex and large-scale development projects from inception through to planning permission both as a project manager and working as part of wider design teams. Sean has extensive experience in working on EIAR projects. Within MKO, Sean plays a large role in the management and confidence building of junior members of staff and works as part of a large multi-disciplinary team to produce planning applications.

Ronan Dunne

Ronan Dunne is a Project Planner with MKO having joined the company in June 2022. Ronan holds a BSc (Hons) in City Planning and Environmental Policy, and a MSc (Hons) in Urban and Regional Planning from University College Dublin where he focused his studies on wind energy development.

Since joining MKO, Ronan has been involved in a range of infrastructure projects, including onshore and offshore wind, solar, battery storage and grid infrastructure developments. In his role as a Project Planner, Ronan works with multidisciplinary teams including members from MKO's Environmental, Ecological and Ornithological departments as well as sub-contractors from various fields in the develop/deliver reports to facilitate the planning process. Through his professional and academic experience, Ronan has gained skills in renewable energy planning, Environmental Impact Assessment, strategic and spatial planning, development management, planning appeals, condition compliance, and project management.

Francesca Rowson

Francesca Rowson is a Senior Planner with MKO with over 12 years post-qualification experience in private practice. Francesca holds a Masters Degree (M.Plan) in Town and Regional Planning from the University of Sheffield in the UK. Prior to taking up her position with MKO in December 2025, Francesca worked as a Planning Manager in KPMG Future Analytics in Ireland and prior to this, she worked for Stantec in the UK and Canada as a Principal Planner. Francesca's key areas of expertise are in development management processes, formulation of planning and engagement strategies and project management including EIA coordination. Francesca has extensive experience of managing planning processes for energy projects and residential and commercial mixed-use development schemes on behalf of Planning Authorities, Government Departments, State bodies and private sector organisations in Ireland and the UK. Francesca's planning and development management experience includes the preparation and management of site feasibility studies, submissions to statutory development plan consultations, planning and engagement strategies, pre-planning consultations, planning applications (including Large Scale Residential Developments (LRDs) and Strategic Infrastructure Developments (SIDs)), planning appeals, compliance submissions, master-planning and socio-economic assessments in support of development projects. Within MKO, Francesca manages a portfolio of renewable energy and infrastructure projects with responsibility for coordinating pre-

planning, planning application and appeal submissions to An Coimisiún Pleanála and local authorities. Francesca is a chartered member of the of the Royal Town Planning Institute (RTPI).

Shikha Gajula

Shikha Gajula has been a Graduate Planner with MKO since August 2025. She holds a Bachelor's degree in Architecture (B.Arch) and a Master's degree in Planning and Development from the University of Galway. Prior to joining MKO, Shikha worked across multiple sectors. As a licensed architect, she contributed to design and documentation at Katerra Design Pvt Ltd, gaining experience in technical drawings for large scale residential and commercial projects, site analysis and barrier-free design. Since joining MKO, Shikha has been involved in a range of projects including wind and solar energy developments, as well as grid infrastructure. She has also contributed to research examining wind farm repowering in Ireland for the Department of the Environment, Climate and Communications (DCEE). Through her academic background and professional practice, Shikha has developed experience in renewable energy planning, Environmental Impact Assessment, strategic and spatial planning, and public participation processes.

Pat Roberts B.Sc. (Env.)

Pat Roberts is Principal Ecologist with MKO with over 18 years post graduate experience of providing ecological services in relation to a wide range of developments at the planning, construction and monitoring stages. Pat holds B.Sc. (Hons) in Environmental Science. Pat has extensive experience of providing ecological consultancy on large scale industrial and civil engineering projects. He is highly experienced in the completion of ecological baseline surveys and impact assessment at the planning stage. He has worked closely with construction personnel at the set-up stage of numerous construction sites to implement and monitor any prescribed best practice measures. He has designed numerous Environmental Operating Plans and prepared many environmental method statements in close conjunction with project teams and contractors. He has worked extensively on the identification, control and management of invasive species on numerous construction sites. Prior to taking up his position with MKO in June 2005, Pat worked in Ireland, USA and UK as a Tree Surgeon and as a nature conservation warden with the National Trust (UK) and the US National Park Service. Pat's key strengths include his depth of knowledge and experience of a wide range of ecological and biodiversity topics and also in his ability to understand the requirements of the client in a wide range of situations. He is currently responsible for staff development, training and ensuring that the outputs from the ecology team are of a very high standard and meet the requirements of the clients and relevant legislation and guidelines. He is a full member of the Chartered Institute of Ecologists and Environmental Managers (CIEEM).

John Hynes M.Sc. (Ecology), B.Sc.

John Hynes is the Ecology Director at MKO, with over 12 years' professional experience in the public and private sector. John oversees MKO's Ecology, Ornithology, Forestry, Bats, and GIS teams. John holds a B.Sc. in Environmental Science and a M.Sc. in Applied Ecology.

John's key strengths and areas of expertise are in Appropriate Assessment of plans and projects, Ecological Impact Assessment, Flora and Fauna survey methods and design, project management and project strategy. John is experienced as a coordinator or large multi-disciplinary teams on complex ecological projects. John has been involved as a lead Ecologist on a range of energy infrastructure, commercial, transport, housing, forestry, biodiversity net gain and nature restoration projects. John is a Full member of the Chartered Institute of Ecology and Environmental Management, a member of Galway County Council Climate and Biodiversity Special Policy Committee (SPC) and a contributor to the Wind Energy Ireland (WEI) Biodiversity and Sustainability Working Group.

Corey Cannon

Corey is Project Director (Ecology) with MKO. She is a Chartered Ecologist (CEcol) and full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) with over 12 years' professional experience. Corey holds a BSc in Zoology from Queen Mary University of London and an MSc in Biodiversity Survey from the University of Sussex. Prior to taking up her position with MKO in October 2023, Corey worked as a Principal Ecologist with Jacobs (Dublin office) for over 8 years and held previous posts with LUC and The Ecology Consultancy in London. Corey has strong generalist ecology field skills in terrestrial and riparian environments (with a particular interest in botany and bat ecology) and through her experience can demonstrate undertaking a range of ecological surveys including habitat, invasive and protected species survey, delivering initial site appraisals and identification of ecological constraints. Key areas of expertise include Ecological Impact Assessments (EcIA), Preliminary Ecological Appraisals (PEAs) and Appropriate Assessment (AA). She has undertaken ecological assessments and surveys on a variety of project types (e.g. road and rail schemes, waste, water and housing) involving survey, mitigation and enhancement. Within MKO Corey is responsible for overall management of the general ecology team alongside Sarah Mullen, providing technical input on all ecological aspects of our projects from inception through to planning. Outside of her professional role Corey is involved with voluntary initiatives. She helped reform the Dublin Bat Group in 2018. She is also a committee member to CIEEM's Ireland Members Network.

Caroline Kelly

Caroline Kelly is a Senior Ecologist with MKO with over 9 years professional experience. She is a Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Caroline holds a BSc in Environmental Biology from University College Dublin and an MSc in Applied Ecological Assessment from University College Cork. In addition, Caroline has completed an Advanced Diploma in Planning and Environmental Law from Kings Inns Dublin. Prior to taking up her position with MKO in June 2025, Caroline worked as a Principal Ecologist with Scott Cawley Ltd. Caroline has strong generalist field ecology skills and has undertaken a range of ecological surveys including habitat, invasive species and protected fauna surveys. She has strong technical reporting skills and has extensive experience in a range of ecological assessments including Appropriate Assessment and Ecological Impact Assessment.

Pádraig Desmond

Pádraig is a Project Ecologist with MKO with 5 years post graduate ecological experience and over 4 years of which have been in ecological consultancy. Pádraig holds a BSc (Hons) in Ecology and Environmental Biology from University College Cork. Pádraig took up his position with MKO in December 2021, prior to which he worked as a Junior Ecologist with Envirico. Through these consultancy roles, Pádraig has gained excellent experience in producing ecological reports such as Natura Impact Statements, Ecological Impact Assessments, Biodiversity chapters, Invasive Species Management Plans, and Constraints Reports for a wide range of projects including small private developments to housing developments and renewable energy projects such as solar and wind farms. Prior to the above roles, Pádraig worked as a field ecologist for the Department of Conservation in New Zealand, where he developed a strong field-based skill set.

Pádraig's key strengths and areas of expertise are in terrestrial ecology, including vegetation surveys, habitat identification, invasive species surveys, mammal surveys, Appropriate Assessment and Ecological Impact Assessment. Pádraig is also skilled in GIS.

Stephanie Corkery

Stephanie is an Ecologist with MKO with over 4 years of experience in professional ecological consultancy. Stephanie holds a BSc. in Ecology and Environmental Biology, an MSc. in Marine Biology, and a HDip in Sustainability in Enterprise, all from University College Cork. Since joining

MKO as a graduate in March 2022, Stephanie has worked on a wide variety of projects including wind farms, large scale residential developments, and County Council projects. Stephanie's key strengths include organising and carrying out both terrestrial and marine mammal surveys, as well as general ecological walkover surveys and bat surveys. She is also experienced in GIS, acoustic data analysis for bat species, and in preparing Appropriate Assessment Screening Reports (AASR), Natura Impact Statements (NIS), Ecological Impact Assessments (EcIA), Biodiversity Chapters, and Bat Reports. Stephanie is also a JNCC Certified Marine Mammal Observer and has completed the ACCOBAMS Course for Highly Qualified Marine Mammal Observers (MMO) and Passive Acoustic Monitoring operators (PAM).

Deepali Mooloo

Deepali Mooloo is an Ecologist at MKO, having joined the company in September 2023. She holds an M.Sc. (Hons) in Applied Coastal and Marine Management from University College Cork, where she specialized in spatial ecology, field skills, and drone photogrammetry. Deepali's expertise lies in ecology and field surveys, with experience in a range of multidisciplinary assessments. Since joining MKO, she has conducted walkover surveys, marsh fritillary surveys, mammal surveys, winter bird surveys, and botanical surveys, including detailed relevés of plant species in both coastal and terrestrial habitats. She is also skilled in habitat assessments, utilizing Fossitt's Guide to Habitats in Ireland and the ERICA database. Her professional experience includes preparing Appropriate Assessment Screening Reports (AASR), Feasibility Studies, Ecological Impact Assessments (EcIA), and Natura Impact Statements (NIS). She is proficient in detailed habitat and ecological constraints mapping using QGIS and has expertise in cartography using both QGIS and ArcGIS. In 2024, Deepali successfully completed the Marine Mammal Observer Course with IDWG. She also has prior experience working in coastal and marine environments in Mauritius.

Aoife Joyce M.Sc. (Agribioscience), B.Sc.

Aoife Joyce is a Project Director (Ecology) with over 6 years' professional experience in ecological assessments and has completed CIEEM and BCI courses in Bat Impacts and Mitigation, Bat Tree Roost Identification and Endoscope training, Bat ID, Trapping and Handling and Kaleidoscope Pro Analysis. She is a graduate of Environmental Science (Hons.) at University of Galway, complemented by a first-class honours MSc in Agribioscience. Prior to taking up her position with MKO in 2019, Aoife held previous posts with Inland Fisheries Ireland and Treemetrics Ltd. She has a wide range of experience from bat roost identification, acoustic sampling, sound analysis, electrofishing, mammal and habitat surveying to GIS, soil and water sampling, Waste Acceptability Criteria testing, Environmental Impact Assessments (EIAs) and mapping techniques. Since joining MKO, Aoife has been involved in managing bat survey requirements for a variety of renewables planning applications, as well as commercial, residential and infrastructure projects. This includes scope development, project coordination, roost assessments, remote bat detector deployment, dawn and dusk bat detection surveys, bat handling, sonogram analyses, mapping, impact assessment, mitigation design inputs and report writing. Within MKO, she oversees the bat team and works as part of a wider multidisciplinary team to help in the production of ecological reports and assessments. Aoife is a member of Bat Conservation Ireland and CIEEM and holds current Bat Roost Disturbance and bat photography licenses.

Tim Murphy

Tim is a Project Bat Ecologist with MKO with over 2 years of experience in Ecology. Tim holds B.Sc. (Hons) Environmental Biology. Tim joined MKO originally in 2020 and worked as an Ecologist for 1.5 years. He has since rejoined MKO in January 2026. Tim has experience performing roost assessments, acoustic surveys, sonogram analyses, impact assessments and report writing. He also has experience carrying out dawn and dusk surveys to test for the presence of bats and their identification and carrying out multidisciplinary field surveys for a range of habitats and species nationwide. Within MKO Tim has worked as part of a large multi-disciplinary team to produce multiple reports across several sectors

Aran Von Der Geest Moroney B.Sc

Aran von der Geest Moroney is a Senior Ecologist with MKO having joined the company in February 2021 and having over 5 years' experience in professional ecological consultancy. Aran holds a first-class honours BSc (Hons) in Ecology and Environmental Biology from University College Cork. Aran has also completed a Level 8 Special Purpose Award in Digital Mapping and GIS. Aran's key strengths and areas of expertise are wintering bird surveying and identification, freshwater macroinvertebrate identification and sampling, freshwater pearl mussel surveying, white-clawed crayfish surveying, electric fishing, bat surveys, GIS, habitat mapping, preparation of Stage 1 and Stage 2 Appropriate Assessment reports and Ecological Impact Assessment. Since joining MKO, Aran has been involved in a range of mixed use, residential, industrial, nature restoration, public services, wind energy and forestry projects. Aran has carried out a wide range ecological field surveys in accordance with NRA Guidelines, bat surveys, bird surveys, recording vegetation relevés and freshwater quality analysis using bioindicators. Aran has provided supervision as an ecological clerk of works in residential and wastewater infrastructure projects. Aran is trained in carrying out bat surveys, non-volant mammal surveys, bird surveys, freshwater pearl mussel surveys, white-clawed crayfish surveys, electric fishing surveys, river condition assessment surveys and in taking vegetation relevés of vascular plants and has experience in habitat identification and habitat mapping. Within MKO, Aran is responsible for independently carrying out and planning a range of ecological field surveys in accordance with NRA Guidelines and carrying out Appropriate Assessment screenings, Natura Impact Statements, Ecological Impact Assessments, Biodiversity chapters for EIARs, Invasive Species Management Plans and Aquatic reports as part of the ecology team. Aran is a member of CIEEM, holds a current Bat Roost Disturbance licence and holds an IFM Certificate in Electric Fishing.

Mark Whelan

Mark Whelan is an Aquatic Ecologist at MKO. Mark holds a first-class honours M.Sc. (Hons) in Applied Environmental Science and a first-class honours B.Sc. (Hons) in Geography & Sociology from University College Dublin. Mark's previous professional experience includes work with stage agencies in Ireland, chiefly Inland Fisheries Ireland and the Marine Institute, where he worked on numerous different fishery stock assessment projects primarily concerning salmonids and European eel. He also has international work experience, including work in remote Alaska and in Scotland, the latter of which he worked on a large-scale Atlantic salmon tracking project with the Scottish Centre for Ecology and the Natural Environment (SCENE).

Mark's key strengths and areas of expertise include fishery survey and assessment techniques, including electrofishing and fishery habitat assessments. His expertise also include freshwater macroinvertebrate surveys and taxonomic identification, River Hydromorphology Assessment Technique (RHAT) surveys, chemical water parameter monitoring, wintering bird surveys, bat surveys, and habitat mapping (Fossit classification). Mark has significant experience in conducting Appropriate Assessment and Ecological Impact Assessment reporting, and since joining MKO in September 2025 he has been involved in surveying and associated reporting of ecological data in support of freshwater barrier removal projects, renewable wind energy projects, as well as commercial and residential developments

Andrew McCarthy

Andrew McCarthy is a Graduate ecologist with MKO with previous experience with the company as an ecology intern during the summer of 2024. Andrew holds BA (Hons) in Ecology and Environmental Biology.

Prior to taking up his position with MKO in September 2025, Andrew worked as an education officer in Fota Wildlife Park during the summer of 2023.

Andrew's key strengths and areas of expertise are in bird identification and communication.

Since joining MKO Andrew has been involved as a student and graduate ecologist on a significant range of projects such as rhododendron mapping in Killarney National Park, e-DNA surveys for white-clawed crayfish and freshwater pearl mussel, biodiversity net gain surveys, multidisciplinary site walkovers and a wide range of bat and bird surveys.

Dervla O'Dowd B.Sc. (Env.)

Dervla O'Dowd is Associate Director with responsibility for MKO's dedicated Ornithology Team with over 20 years of experience in environmental consultancy as a Senior Ecologist and Project Manager. Dervla graduated with a first-class honours B.Sc. in Environmental Science from NUI, Galway in 2005 and joined Keville O'Sullivan Associates in the same year. Dervla has gained extensive experience in project management and ecological assessment of the impacts of various infrastructural projects including wind energy projects, water supply schemes, road schemes and housing developments nationwide and has also been involved in the compilation of Environmental Impact Reports and acted as EIAR coordinator on many of these projects. Dervla has also extensive experience in the provision of ecological site supervision for infrastructural works within designated conservation areas, in particular within aquatic habitats, and has also been involved in the development of environmental/ecological educational resource materials. Currently, Dervla is responsible for the management of MKO's dedicated Ornithology Team coordinating MKO's portfolio of bird survey and assessment work required on major infrastructural projects, with emphasis on wind energy projects. Dervla's key strengths and areas of expertise are in project management, project strategy, business development and survey co-ordination to ensure the efficient operation of the Ornithology team's field survey schedule. Dervla holds full membership of the Chartered Institute of Ecology and Environmental Management and current Safe Pass card.

Padraig Cregg M.Sc., B.Sc.

Padraig Cregg is employed as a Principal Ornithologist for MKO and has over eleven years' experience of working in environmental consultancies. In his role with MKO, he acts as technical advisor for the ornithology team helping to take projects through their full lifecycle, from site selection through survey design, constraints studies, impact assessment and lodgement of the planning application. He is responsible for training the ornithology team and undertakes to keep up-to-date and keep his colleagues updated on all emerging guidance, legislation, policies, initiatives, industry best practice and emerging trends and market opportunities. Padraig joined MKO in 2018.

Patrick Manley

Patrick Manley is a Senior Ornithologist with MKO with over 9 years of experience in environmental consultancy. Patrick holds BSc (Hons) in Geology from University College Dublin. Since joining MKO, Patrick has worked on wind farm projects, solar farm projects, residential developments, data centres, county council projects and National Parks and Wildlife Service projects. He specialises in ornithological consulting, including Environmental Impact Assessments and has specialist knowledge in designing, executing and project managing ornithological assessments, primarily in the renewable industry. Prior to joining MKO in August 2016, Patrick gained experience through his involvement in several bird conservation projects, including protected curlew, seabirds and waders. Within MKO, Patrick plays a large role in the management and confidence building of junior members of staff and works as part of a large multi-disciplinary team to produce EIAR chapters.

Ciarán McKenna BSc. (Hons)

Ciarán is a Project Ornithologist with MKO, bringing over 8 years of experience in ecological consultancy. Ciarán holds a BSc. (Hons) in Wildlife Biology and joined MKO in March 2018. Prior to this, he worked as a consultant ecologist with Malachy Walsh & Partners, where he completed numerous ecological surveys, including ornithological, habitat, and bat surveys, and conducted

Appropriate Assessment screenings. Ciarán specialises in managing ornithological monitoring for operational wind farms, overseeing large-scale surveys, and ensuring condition compliance. His key strengths and areas of expertise include ornithological survey methods, and species-specific surveys (e.g., barn owl, hen harrier, red grouse). He is also highly skilled in the use of QGIS for digital mapping, GenEst for mortality estimates, and regularly produces high-quality monitoring reports for clients. Since joining MKO, Ciarán has taken on the role of managing the ornithological operational monitoring projects across Ireland. He is responsible for liaising with clients, landowners, and multidisciplinary teams to ensure projects run smoothly and efficiently. Ciarán plays an integral role within the operational monitoring team at MKO. His commitment to clear communication and collaboration ensures clients are kept up to date on all key findings and project developments.

Jack Bousfield

Jack is a Project Director specialising in GIS for MKO with over 8 years' experience in industry. This has spanned working in the public sector, private sector and as a GIS software supplier. Having graduated from Northumbria University in 2015 Jack has focussed on providing high quality GIS outputs and support to software users. This varies from traditional data management, drawing production and analysis skills to more contemporary digital reporting, surveying and application configuration. Jack has worked across a variety of disciplines providing GIS support for projects relating to hydrology and flooding, geotechnical investigation, ecology, environment, engineering, active travel and more recently for renewables projects focal to wind and solar. Jack is a team lead and efficiently organises and delegates tasks.

Madeline Napier-Ruane

Madeline Napier-Ruane is a GIS Technician with MKO with over 5 years of experience working with GIS Applications. Madeline holds a MA in Landscape Archaeology and a BA in Anthropology with a minor in Comparative Religions. Prior to taking up her current position with MKO in September 2024, Madeline worked as a Data Administrator within the Ornithology team in MKO. Madeline's key strengths and area of expertise are in GIS software (QGIS and ESRI Suite), with strong talents for data management. Since joining MKO's GIS team, Madeline has been involved with many types of projects ranging from the renewable energy sectors to housing and social infrastructures. Within MKO, Madeline, works with numerous in-house teams providing GIS support and facilitating key GIS process updates.

Jack Workman MSc

Jack is the Landscape & Visual Team manager at MKO and is a Technician Member with the British Landscape Institute. He is a Landscape and Visual Impact Assessment Specialist with an academic background in the field of Environmental Science and Geography. Jack's primary role at MKO is conducting Landscape and Visual Impact Assessment (LVIA) for Environmental Impact Assessment reports. Jack holds a BSc. in Psychology, and an MSc. in Coastal and Marine Environments (Physical Processes, Policy & Practice) where he was awarded the Prof. Máirín De Valéra distinction in science research award. Prior to taking up his position with MKO, Jack worked as a Geospatial Analyst and Research Assistant with NUIG and also held previous posts in the coastal engineering sector with Royal Haskoning DHV and Saltwater Technologies. Since joining MKO in February 2020, Jack has conducted and project managed all aspects of LVIA for a broad range of commercial infrastructure developments including wind and solar energy projects, grid infrastructure, extraction industry and Strategic Housing Developments. Jack holds a membership with the Chartered Institute of Water and Environmental Management and is also a member of the Landscape Research Group.

Daniel Mulpeter

Daniel Mulpeter is an Environmental Scientist and LVIA Specialist at MKO, with over two years of experience in Landscape and Visual Impact Assessments (LVIA) across wind energy, solar energy, residential, and public infrastructure projects. His key strengths include proficiency in GIS tools such as QGIS, conducting landscape and visual impact assessments, and capturing data through drone surveys and photomontages. Daniel is an affiliate member of the Landscape Institute and holds drone qualifications in the A1/A3 subcategories.

Daniel holds an MSc in Environmental Science from Trinity College Dublin, where he completed his thesis titled “Estimating Peat Depth using Gamma-ray Spectrometry and Photogrammetry.” He also holds a BSc (Hons) in General Science, specialising in Applied Mathematics and Biology.

Brian O’Carroll

Brian O’Carroll currently holds the position of Graphics Technician within MKO.

Brian has obtained a second-class honours degree (level 8) in Design – Visual communications from the Limerick School of art and Design. Prior to taking up his position with MKO in June 2023, Brian worked for close to 20 years as a graphic designer and Pre Press Manager and former Senior graphic designer within the print industry.

Brian has worked within the design department, as a graduate he joined Cube Printing Ltd, (Limerick) and worked his way from junior designer to senior and then lead designer for Cube. Brian then progressed to the design and Pre Press Manager of the well-established Davis printers (Limerick). His key skills are the implementation of the skills acquired over the years in the Adobe Suite, primarily but not limited to Indesign, Photoshop, Lightroom and Illustrator. Communication and planning for print are amongst Brians greatest attributes. Brian is now fully versed in WindPro Software and is a key part of the Graphics Pod within MKO, has is recently completed training in Pano2VR and Website design.

Killian Devereux

Killian is currently the Project CAD Technician at MKO he has over 9 years of drafting experience in various sectors of the building industry. He holds BSc (Hons) in Architectural Technology from Galway Mayo Institute of Technology. Prior to taking up his position with MKO in October 2022, Killian worked as a Structural CAD/BIM Technician for Tobin Consulting Engineers and as an Architectural Technician for some smaller-scale Engineering Consultants. He was primarily involved in a variety of Commercial / Residential projects where he was responsible for the structural drawing packages but also has experience working in RC concrete Drawings, Architectural and Civil drawings, FSC’s /DAC’s and one-off housing planning applications. His key strengths and areas of expertise are in Auto CAD, Revit, Cads RC and Google Sketch up. Since Joining MKO Killian has been the lead CAD technician on multiple Renewable Energy Planning Applications.

Joseph O’Brien

Joseph O’Brien is a CAD Technician with MKO with over 9 years of experience. Joseph holds a BA Honours Level 8 Modelmaking, Design and Digital Effect, Institute of Art Design and Technology (IADT), Dun Laoghaire & City & Guilds Level 3 2D &3D AutoCAD certificates. Prior to taking up his position with MKO in June 2016, Joseph worked as worked as a free-lance Modelmaker and CAD Technician. His previous experience included designing various models and props through CAD and then making them for various conventions such as Dublin Comic Con and Arcade Con. Joseph’s key strengths and areas of expertise are skills such as mapping, aerial registration and detailed design drawings for projects. Since joining MKO Joseph has been role of producing planning application drawings through CAD for various projects such as renewable energy such as wind and solar.

Flora Ballario

Flora is a CAD Technician at MKO with over eight years of drafting experience across various sectors of the building industry. She holds a BSc (Hons) in Architecture and Urbanism from FMU | FIAM-FAAM University Centre in São Paulo, Brazil.

Prior to joining MKO in November 2025, Flora worked as an Architect at Fergal Bradley & Co. and as an Architectural Assistant and Graphic Designer for an engineering company. She has been involved in a wide range of commercial and residential projects, primarily responsible for preparing planning drawing packages, and also has experience working on FSCs, DACs, and one-off housing planning applications. Her key strengths and areas of expertise are in Auto CAD.

1.9.2.2 Hydro Environmental Services Ltd

Michael Gill

Michael Gill (P. Geo., B.A.I., MSc, Dip. Geol., MIEI) is an Environmental Engineer/Hydrologist with over 24 years' environmental consultancy experience in Ireland. Michael has completed numerous hydrological and hydrogeological impact assessments of wind farms in Ireland. He has also managed EIAR assessments for infrastructure projects and private residential and commercial developments. In addition, he has substantial experience in wastewater engineering and site suitability assessments, contaminated land investigation and assessment, wetland hydrology/hydrogeology, water resource assessments, surface water drainage design and SUDs design, and surface water/groundwater interactions. For example, Michael has worked on the EIS/EIARs for Slievecallan Wind Farm, Cahermurphy Wind Farm, and Carrownagowan Wind Farm, and over 100 other wind farm related projects across the country.

David Broderick

David Broderick (P. Geo., BSc, H. Dip Env Eng, MSc) is a Hydrogeologist with over 19 years' experience in both the public and private sectors. Having spent two years working in the Geological Survey of Ireland working mainly on groundwater and source protection studies David moved into the private sector. David has a strong background in groundwater resource assessment and hydrogeological/hydrological investigations in relation to developments such as quarries and wind farms. David has completed numerous geology and water sections for input into EIARs for a range of commercial developments. David has worked on the EIS/EIARs for Carrigarierk Wind Farm, Curraglass Wind Farm, Esk Wind Farm and Shehymore Wind Farm, and over 60 other wind farm related projects across the country.

1.9.2.3 Fehily Timoney & Company

Ian Higgins

Ian is a geotechnical engineer with over 25 years' experience in the design and supervision of construction of bulk earthworks, geotechnical foundation design, geotechnical monitoring and reviewing, reinforced earth design and 3rd party checking of piling and ground improvement designs. Ian holds a BSc (Hons) Engineering Geology from University of Sunderland, and a MSc in Geotechnical Engineering from the Heriot-Watt University. Ian's experience also includes the design, supervision and interpretation of ground investigations, including desk studies, walkover surveys, hazard mapping of rock excavations and slopes.

Ian has experience in many areas of civil engineering including highways, railways, energy projects and commercial developments. Ian's responsibilities include managing junior engineers, reviewing work carried out for ground investigation, reporting and design. Ian has also experience in using a number of

geotechnical software packages including slope stability, finite element, pile design and retaining wall design.

1.9.2.4 **AWN Consulting**

Miguel Cartuyvels

Miguel Cartuyvels (Acoustic Consultant) holds a BEng (Hons) in Industrial Engineering and is a member (TechIOA) of the Institute of Acoustics. Miguel previously worked in the construction industry and has worked in the field of acoustics since 2021, where he has contributed to numerous projects related to environmental surveying, noise modelling, and impact assessment for various sectors, including wind energy, industrial, commercial, and residential.

Dermot Blunnie

Dermot Blunnie (Principal Acoustic Consultant) holds a BEng (Hons) in Sound Engineering, MSc in Applied Acoustics and has completed the Institute of Acoustics (IOA) Diploma in Acoustics and Noise Control. He has been working in the field of acoustics since 2008 and is a member of the Institute of Engineers Ireland (MIEI) and the Institute of Acoustics (MIOA). He has extensive knowledge and experience in relation to commissioning noise monitoring and impact assessment of wind farms as well as a detailed knowledge of acoustic standards and proprietary noise modelling software packages. He has commissioned noise surveys and completed noise impact assessments for numerous wind farm projects within Ireland.

Mike Simms

Mike Simms (Principal Acoustic Consultant) holds a BE and MEngSc in Mechanical Engineering and is a member of the Institute of Acoustics (MIOA) and of the Institution of Engineering and Technology (MIET). Mike has worked in the field of acoustics for over 20 years. He has extensive experience in all aspects of environmental surveying, noise modelling and impact assessment for various sectors including, wind energy, industrial, commercial and residential.

1.9.2.5 **Tobar Archaeological Services**

Miriam Carroll

Miriam Carroll is a partner of Tobar Archaeological Services which was established in 2003. Prior to that Miriam worked in the field of commercial archaeology for five years in University College Cork where she completed her primary and Masters degrees. Miriam has over 24 years of experience in the field of archaeology, with 19 of those as partner of Tobar Archaeological Services. She is a full member of the Institute of Archaeologists of Ireland (IAI) and is licensed by the National Monuments Service to carry out excavations in Ireland. Miriam undertook her primary degree in Archaeology (major) and English (minor) between 1993 and 1996. Her Masters degree was also undertaken in University College Cork. This was a 2 year course in Irish Archaeology. The subject of Miriam's thesis focused on 'Ballyalton Bowls' (prehistoric pottery) in the context of the Irish Neolithic. This Masters degree was undertaken between 1996 and 1998. Miriam then went on to work in commercial archaeology in the Archaeological Services Unit of University College Cork for 5 years after which both Annette Quinn and Miriam set up the business Tobar Archaeological Services in 2003. She is a full member of the Institute of Archaeologists of Ireland (IAI) and is licensed by the National Monuments Service to carry out excavations in Ireland. Miriam has overseen numerous commercial projects in Ireland including wind, solar and overhead line projects. Miriam was the project archaeologist for the Bandon Sewerage Scheme which lasted a number of years. This required a high-level of experience and organization as well as the resolution of parts of the 17th century town wall and other additional significant finds in a timely and efficient manner. Miriam also successfully managed a major excavation in Buttevant, Co.

Cork for the Cork Education and Training board as well as being the project archaeologist for Fota Wildlife park extension from 2014. This involved project management of a large team of archaeologists on a medieval settlement site. Miriam has also undertaken numerous EIARs and has presented evidence at numerous Oral Hearings for bodies such as Eirgrid.

1.9.2.6 Alan Lipscombe Traffic and Transport Consultants

Alan Lipscombe

Alan Lipscombe is a competent expert in traffic and transport assessments. In 2007 Alan set up a traffic and transportation consultancy providing advice for a range of clients in the private and public sectors. Prior to this Alan was a founding member of Colin Buchanan's Galway office having moved there as the senior transportation engineer for the Galway Land Use and Transportation Study. Since the completion of that study in 1999, Alan has worked throughout Ireland on a range of projects including: major development schemes, the Galway City Outer Bypass, Limerick Planning Land-Use and Transportation Study, Limerick Southern Ring Road Phase II, cost benefit analyses (COBA) and various studies for the University of Galway. Before moving to Galway in 1997, Alan was involved in a wide variety of traffic and transport studies for CBP throughout the UK, Malta and Indonesia. He has particular expertise in the assessment of development related traffic, including many wind farm developments including the following; Ardderroo, Derrinlough, Knocknamork, Shehy More, Clonreen, Derrykillew, Ballyhorgan, Lettergull, Barnadivane, Cleanrath, Knockalough, Sheskin South and Borrisbeg.

Alan has a BEng (hons) Degree in Transportation Engineering (Napier University, Edinburgh, 1989), is a member of Engineers Ireland and of the Institute of Highways and Transportation and is a TII accredited Road Safety Audit Team Member.

1.10 Difficulties Encountered

There were no technical difficulties encountered during the preparation of this EIAR.

1.11 Viewing and Purchasing of the EIAR

Copies of this EIAR will be available online for the planning application, including the Non-Technical Summary (NTS), on the Planning Section of the ACP website, 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 ACP, and Clare 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,
St. Rotunda,
Dublin 1

Clare County Council
Áras Contae an Chláir
New Road
Ennis
Co. Clare
V95 DXP2

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 recently set up by the Department as an electronic notification to the public of requests for development consent which are accompanied by an EIAR. (<https://www.housing.gov.ie/planning/environmental-assessment/environmental-impact-assessment-eia/eia-portal>)

The EIAR will also be available to view online on its dedicated SID website:
www.slieveacurryplanning.com