Planning and Environmental Consultants

Environmental Impact Assessment Report

Lemanaghan Wind Farm, Co. Offaly

Chapter 1 Introduction

Table of Contents

GLOSSARY OF TERMS

Term	Definitions
DoEHLG 2006 Guidelines	The 2006 Wind Energy Development Guidelines. The current published wind energy development guidelines which addresses a variety of aspects relating to wind energy developments inclusive of noise, shadow flicker, setback distances and community obligations

Draft DoHPLG 2019 Guidelines	The Draft 2019 Wind Energy Development Guidelines. A draft document of the updated Wind Energy Development Guidelines yet to be published.
Natura Impact Statement	NaA report prepared to assess the potential for a project to impact EU designated sites (i.e. Natura 2000 sites)
Renewable Energy Directive	An EU Directive which aims to accelerate the EU's renewable energy transition and promote energy independence
The Applicant	Lemanaghan Wind Farm DAC

GLOSSARY OF ACRONYMS

Acronym	Definition
AA	Appropriate Assessment
ACP	An Coimisúin Pleanála
BnM	Bord na Móna Energy Ltd. a subsidiary of Bord na Móna plc
CAP	Climate Action Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
COP	Conference of the Parties
DCENR	Department of Communications, Energy & Natural Resources
DECC	Department of the Environment, Climate and Communication
DoEHLG	Department of the Environment, Heritage and Local Government
DoHPLG	Department of Housing, Planning and Local Government
DPER	Department of Public Expenditure and Reform
EC	European Commission
EEA	European Environment Agency
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
ESBN	Electricity Supply Board Network
EU	European Union
GFC	Gross Final Consumption

GW	Gigawatt
GWL	Global Warming Levels
IEMA	Institute of Environmental Management and Assessment
IPCC	International Panel on Climate Change
IPC	Integrated Pollution Control License
kV	Kilovolt
MW	Megawatt
NECP	National Energy and Climate Plan
NESF	National Energy Security Framework
NIS	Natura Impact Statement
NOx	Nitric Oxide and Nitrogen Dioxide
NPWS	National Parks and Wildlife Service
OCDP	Offaly County Development Plan
O3	Ozone
PM	Particulate Matter
RED	Renewable Energy Directive
REDIII	Third Revision of the Renewable Energy Directive
RES	Renewable Energy Share
RESS	Renewable Energy Support Scheme
SEAI	Sustainable Energy Authority of Ireland
SID	Strategic Infrastructure Development
SO2	Sulphur Dioxide
TWh	Terawatt Hour
UNFCCC	United Nations Framework Convention on Climate Change
WAM	With Additional Measures
WEM	With Existing Measures
WHO	World Health Organization

1. INTRODUCTION

1.1 Introduction

This Environmental Impact Assessment Report (EIAR) has been prepared by MKO on behalf of Lemanaghan Wind Farm DAC (the Applicant), which intends to apply to An Coimisiún Pleanála (ACP) for planning permission for the construction of a wind energy development and all associated infrastructure within the Lemanaghan Bog and adjacent townlands, near Ferbane, Co. Offaly. The proposed project (fully described in Chapter 4: Description of the Proposed Project of this EIAR) is being brought forward in response to local, national, regional and European policy regarding Ireland's transition to a low-carbon economy, associated climate change policy objectives and to reduce Ireland's dependence on imported fossil fuels for the production of electricity.

The proposed project will encompass 15 no. wind turbines with a maximum blade tip height of 220 metres (m) above the top of the foundation. The application meets the threshold for wind energy set out in the Seventh Schedule of the Planning and Development Acts 2000 to 2024, on foot of a notice issued by ACP on 3rd of March 2026 and is therefore being submitted directly to ACP as a Strategic Infrastructure Development (SID) in accordance with Section 37E of the Planning and Development Act 2000, as amended. Please note, the planning application will encompass all elements of the proposed project, including the 220kV grid connection infrastructure and associated works.

The proposed project will comprise 15 no. wind turbines with a tip height of 220 metres (m) and will have an estimated installed capacity of 90MW. The proposed project therefore meets the threshold for Strategic Infrastructure Development (SID), as set out in Part 1 of the Seventh Schedule of the Planning and Development Act 2000 (Act), as amended, being:

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

The proposed project is therefore subject to the requirements of the RED III Directive transposed into Irish Law by the European Union (Planning and Development) (Renewable Energy) Regulations 2025 (S.I. No. 274 of 2025). The proposed project will be submitted directly to ACP as a SID application in accordance with Section 37E of the Planning and Development Act 2000, as amended. This approach has been confirmed following consultations with ACP under the provisions of Section 37B of the Planning and Development Act 2000 as amended (case reference PC19.310844). This EIAR accompanies the planning application for the proposed 15 no. wind turbines and associated infrastructure submitted to ACP.

This EIAR accompanies the planning application for the proposed project submitted to ACP. The planning application is also accompanied by a Natura Impact Statement ('NIS').

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

1.1.1 References to Proposed Project

The proposed project will be known as the Lemanaghan Wind Farm and for the purposes of the 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 of this EIAR.
- Where the 'Proposed Wind Farm' is referred to, this refers to turbines and associated foundations and hard-standing areas, meteorological mast, internal roads, amenity

track, temporary construction compounds, underground cabling, peat and spoil management, borrow pits, site drainage, biodiversity mitigation and enhancement, turbine delivery route and associated junction accommodation works, and all ancillary works and apparatus. The Proposed Wind Farm is described in detail in Chapter 4 of this EIAR.

- Where the 'Proposed Grid Connection' is referred to, this refers to the onsite 220kV substation wind farm control building, associated temporary construction compound, 2 no. gantry structures, 2 no. crane pad, 2 no. tower pad, 4 no. steel masts, telecommunications tower, temporary access track, and overhead line (OHL) connecting to the existing Shannonbridge-Maynooth 220kV OHL, and all ancillary works and apparatus. The Proposed Grid Connection is described in detail in Chapter 4 of this EIAR.
- Where the 'Proposed Project site' or '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 1,258 hectares.

This EIAR, along with the NIS, will accompany the planning application for the Proposed Project which will be made to ACP. Both the EIAR and NIS contain the information necessary for ACP to complete the Appropriate Assessment and Environmental Impact Assessment as required for this planning application.

Both the EIAR and NIS take into account the combined impacts of the 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 plans and 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 and has been defined in consideration of the land ownership boundaries, natural features onsite, such as field patterns, land-use, habitats, and man-made features, such as roads, rail-lines, and national grid infrastructure. However, each individual topic, i.e., chapter, has its own study area for assessment purposes relevant to that topic which will be clearly identified in the relevant chapters. The red line boundary for the purposes of this planning application occupies a smaller area within the EIAR Site Boundary, approximately 1,118ha (i.e., 89% of the site), (see Figure 1-3 below). The EIAR Site Boundary encompasses an area of approximately 1,258 hectares. The permanent infrastructure footprint of the Proposed Project measures approximately 34.3 hectares, which represents approximately 3% of the site.

The Proposed Project is described in detail in Chapter 4 of this EIAR.

1.1.2 Proposed Project Site Location

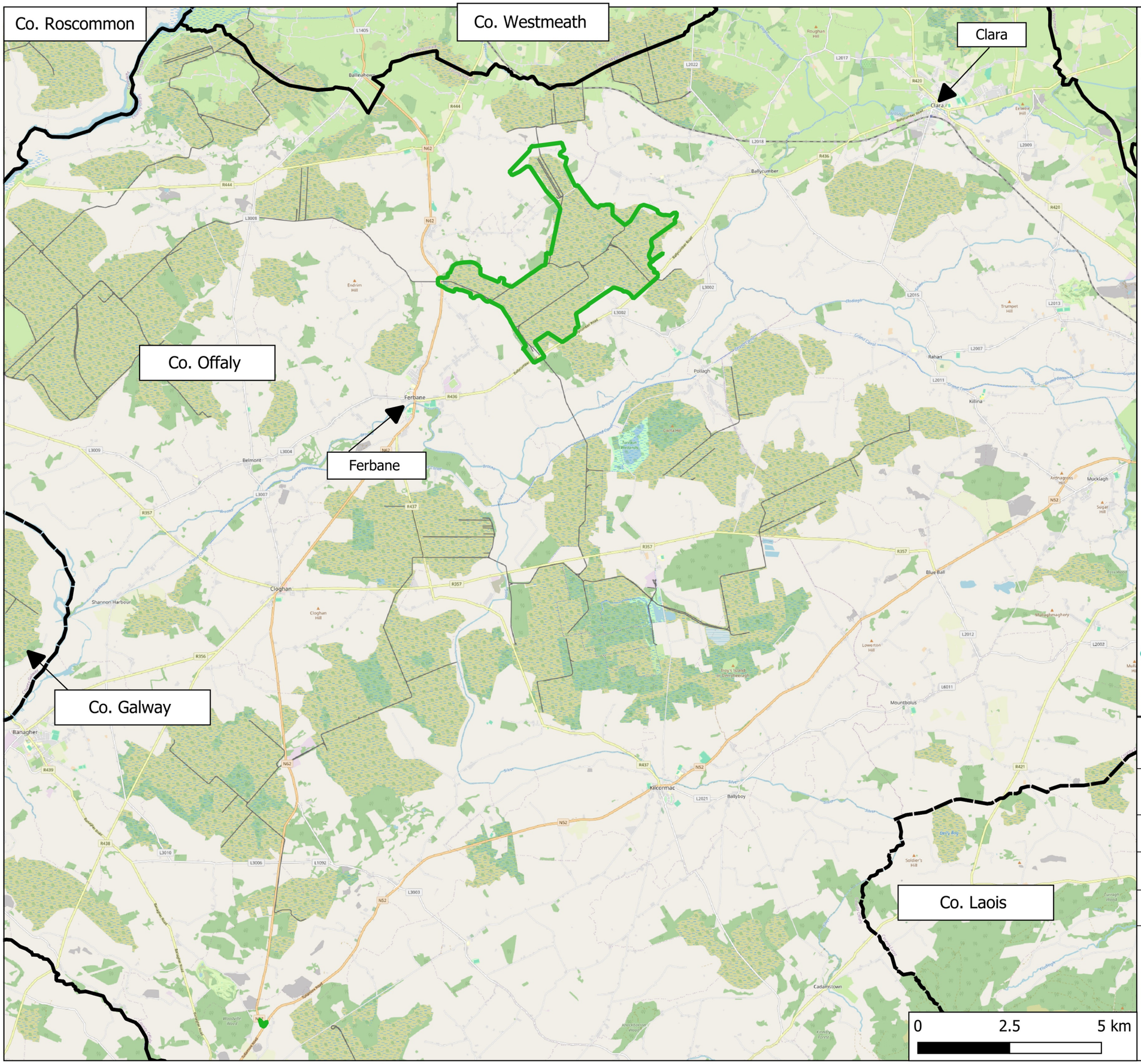
The Proposed Wind Farm is located approximately 3 kilometres (km) northeast of Ferbane and approximately 2.5 km southwest of the village of Ballycumber in Co. Offaly. The approximate centre of the site is X616027, Y728163 in Irish Transverse Mercator (ITM) coordinates. It is proposed to access the Proposed Wind Farm via 4 no. proposed site entrances; please see Section 4.7.1 of Chapter 4: Description of the Proposed Project for further information on site access. A site location context map and the EIAR Site Boundary are shown in Figure 1-1. The Proposed Project site is shown overlain on aerial imagery in Figure 1-2. For clarity, the red line planning application boundary, i.e., the area in which the Applicant is applying for planning permission, is shown on Figure 1-3.

The Proposed Grid Connection will connect the Proposed Wind Farm to the national electricity grid. Underground electrical cables will transmit the power from each wind turbine to the proposed onsite 220kV substation. The Proposed Grid Connection will connect the Proposed Wind Farm into the national grid via the existing Shannonbridge-Maynooth 220kV Overhead Line (OHL) in the townland

of Cooldorragh, Co. Offaly measuring approximately 0.8km in total length (comprising 0.4km of OHL double loop-in/loop-out from the proposed onsite 220kV substation to the existing OHL). It is proposed to access the Proposed Grid Connection via 2 no. site entrances. Please see Section 4.7.1 of Chapter 4 for further information on site access.

The landcover within the site is a mixture of bare cutaway peat, re-vegetated bare peat, degraded raised bog, scrub, low woodland and remnants of high bog. Current land use within the Proposed Wind Farm comprises natural recolonisation of cutaway and degraded bog and a small area of active turbary. Approximately 17km of Bord na Móna (BnM) permanent fixed-gauge rail lines can be found running through Lemanaghan Bog. Current land use along the Proposed Grid Connection comprises degraded raised bog and land principally used for agriculture. Land-use in the wider landscape of the site comprises of BnM landholdings, forestry, agricultural land, cutover and cutaway peatland, one-off rural housing and small village settlements.

The Proposed Project site is located within an area designated in the Offaly County Development Plan 2021-2027 as 'Open for Consideration' and 'Not Deemed Suitable' for wind energy development; please note all proposed turbine locations, are within the 'Open for Consideration' wind energy designation, with the exception of T05 which is located on the boundary between 'Open for Consideration' and an area 'Not Deemed Suitable' for wind energy. Please see Section 2.6.4 of Chapter 2 for further information on the Offaly County Development Plan wind energy designations.



Map Legend

EIAR Site Boundary

County Boundaries

Drawing Title

Site Location Context

Project Title

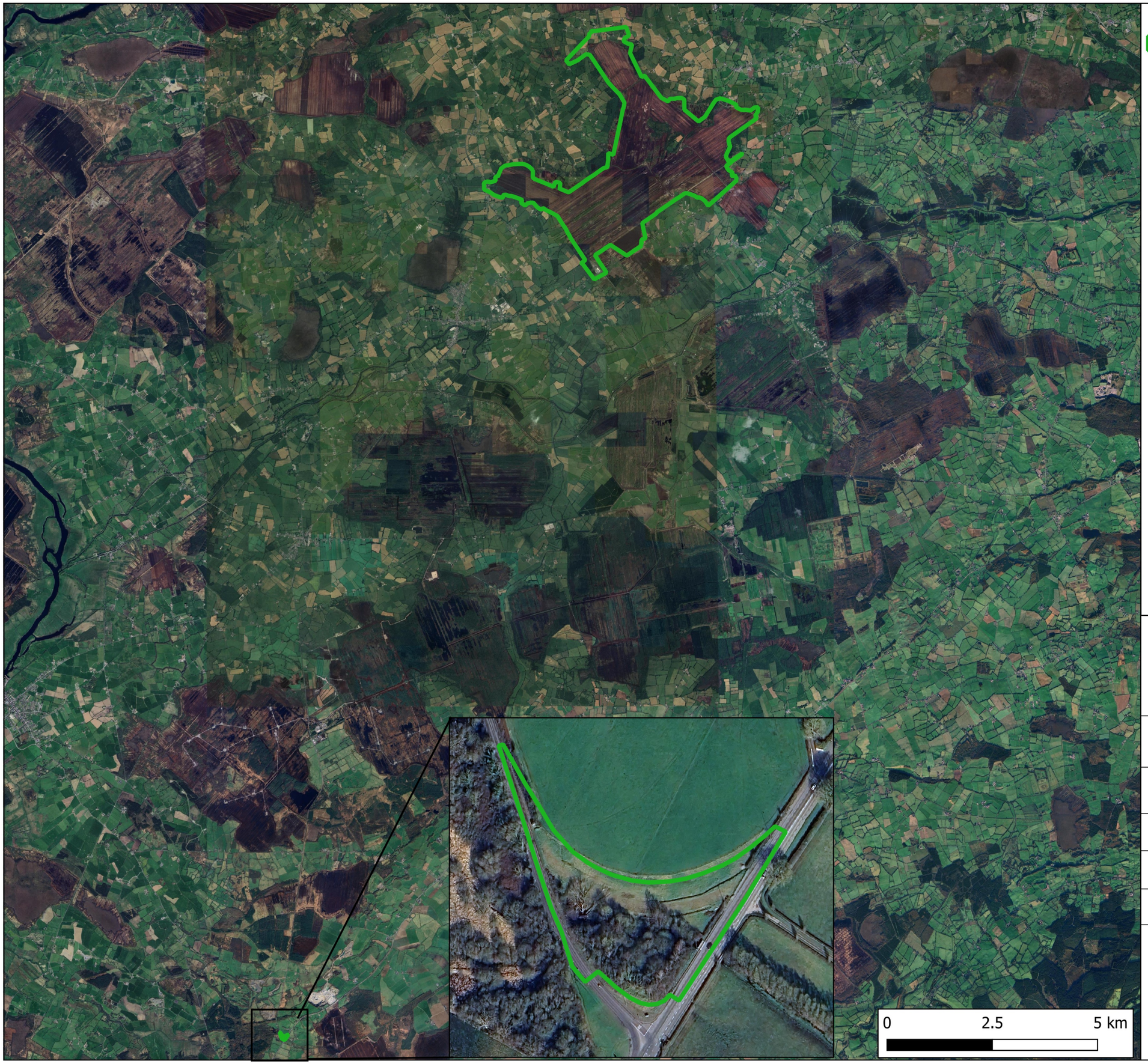
Lemanaghan Wind Farm, Co. Offaly

Drawn By	Checked By
CJ	EC
Project No. 200804	Drawing No. Figure 1-1
Scale 1:100,000	Date 2026-02-25

MKO

Planning and Environmental Consultants

Tuam Road, Galway
Ireland, H91 VW84
+353 (0) 91 735611
email:info@mkoireland.ie
Website: www.mkoireland.ie



Map Legend

EIAR Site Boundary

Drawing Title

EIAR Site Boundary

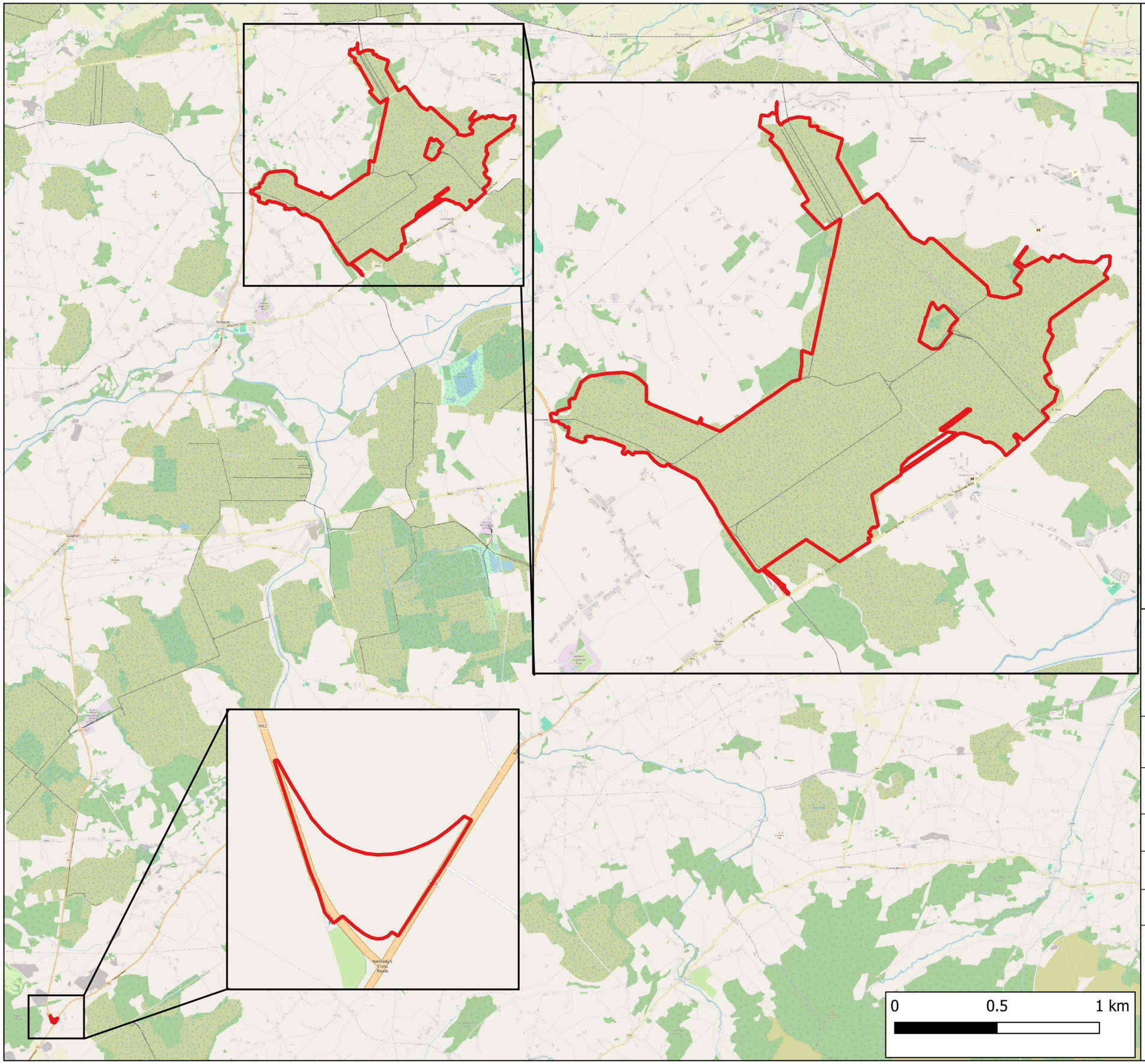
Project Title

Lemanaghan Wind Farm, Co. Offaly

Drawn By	Checked By
CJ	EC
Project No. 200804	Drawing No. Figure 1-2
Scale 1:87,500	Date 2026-01-12

MKO
Planning and Environmental Consultants

Tuam Road, Galway
Ireland, H91 VW84
+353 (0) 91 735611
email:info@mkoireland.ie
Website: www.mkoireland.ie



Drawing Title
Planning Application Red Line Boundary

Project Title
Lemanaghan Wind Farm, Co. Offaly

Drawn By	Checked By
CJ	EC
Project No. 200804	Drawing No. Figure 1-3
Scale 1:90,000	Date 2026-01-19

MKO
Planning and Environmental Consultants
Tuam Road, Galway
Ireland, H91 VW84
+353 (0) 91 735611
email:info@mkoireland.ie
Website: www.mkoireland.ie

The townlands within which the Proposed Project is located are listed in Table 1-1. All townlands are located in Co. Offaly.

Table 1-1 Townlands within which the Proposed Project is located.

Development Works	Townlands
Proposed Wind Farm	
Wind turbines and associated foundations and hard-standing areas, meteorological mast, internal roads, amenity track,, temporary construction compounds, underground cabling, peat and spoil management, borrow pits, site drainage, biodiversity mitigation and enhancement and all ancillary works and apparatus	Tumbeagh, Killaghintober, Castlearmstrong, Leabeg, Kilnagoolny, Lemanaghan, Rosfaraghan, Derrica More, Corbane, Lisdermot, Cor Mor and Cor Beg, Straduff, Cooldorragh, Kilnagarnagh, Cappanalosset, Cornafurrish and Corrabeg, Rashinagh, Ballindown
Turbine Delivery Route Junction Accommodation Works	Ballindown, Corbane, Lisdermot
Proposed Grid Connection	
Onsite 220kV substation wind farm control building, associated temporary construction compound, 2 no. gantry structures, 2 no. crane pad, 2 no. tower pad, 4 no. steel masts, temporary access track, and OHL connecting to the existing Shannonbridge-Maynooth 220kV OHL, and all ancillary works and apparatus	Cooldorrag, Kilnagarnagh, Cappanalosset

Current activities onsite include site management and environmental monitoring as required under Integrated Pollution Control (IPC) Licence P0500-01[1] from the Environmental Protection Agency (EPA). Active industrial peat extraction under IPC Licence No. 500-01 ceased in June 2020. However, previously extracted stockpiles continued to be removed from the bog until the end of 2024. Irrespective of any further development on the site, BnM's statutory duties to discharge the conditions of its IPC Licence will remain ongoing. Condition 10 of the IPC licence instructs BnM to produce draft peatland rehabilitation plans for each bog under the IPC 500-01 license of the Boora Bog Group, within which the Proposed Project site is located, upon cessation of peat extraction. These draft plans will be agreed by the EPA prior to implementation. Please see Section 2.10.2.3 in Chapter 2 for further detail on the IPC License and Appendix 2-4 for the Draft Cutaway Bog Decommissioning and Rehabilitation Plans for Lemanaghan Bog.

This form of enhanced peatland rehabilitation, which is above and beyond what is required under IPC license, has also been successfully implemented at the recently constructed Cloncreen Wind Farm. To date, approximately 20,955ha of peatland has been rehabilitated under the PCAS[2]. PCAS is supported by Government through the Climate Action Fund and Ireland's National Recovery and Resilience Plan administered by the Department of Environment, Climate and Communications (DECC). Please see https://www.bnmpcas.ie/ for details. The National Parks and Wildlife Service (NPWS) acts as the Scheme regulator and there is ongoing engagement with the EPA. This scheme is separate to the IPC licence requirements and does not form part of the Proposed Project application.

[1] *Integrated Pollution Control License PO-500-01 issued by the EPA for the Boora Bog Group. Available at: https://epawebapp.epa.ie/terminalfour/ippc/ippc-view.jsp?regno=P0500-01*
[2] *https://www.bnmpcas.ie/news-and-updates/*

The Proposed Project site is surrounded by BnM landholdings, forestry, agricultural land, cutover and cutaway peatland, one-off rural housing and small village settlements.

Bord na Móna Energy Ltd. a subsidiary of Bord na Móna plc, trading as BnM, has submitted a planning application to ACP on 12th September 2025 (PL. Ref SU19.323676) for substitute consent for peat extraction and all peat extraction related activities from July 1988 to the present day that have been carried out within Lemanaghan Bog, Co. Offaly. The application for substitute consent is seeking consent for development which took place from July 1988,[3] the timeframe for when the EIA Directive was required to be transposed into Irish Law, to present day. Section 177E of the Planning and Development Act 2000, as amended, permits an application to be made for substitute consent in respect of development which has been carried out where an Environmental Impact Assessment (EIA), screening for EIA and/or Appropriate Assessment (AA) was or is required. The substitute consent application seeks to regularise the planning status of the historic industrial peat extraction activity on Lemanaghan Bog, in which the Proposed Project site is located.

A cumulative impact assessment and relevant mitigation measures are set out within each of the chapters of this EIAR.

1.2 Legislative Context

On the 15th July 2021, the Applicant sought a determination, from ACP, in relation to the SID status or otherwise, of a proposed wind farm development at Lemanaghan, Co. Offaly. This request was made in accordance with Section 37B of the Planning and Development Act 2000 (Act), as amended (PC19.310844). The Planning and Development Act 2024 was signed into law by the President on the 17th of October 2024, however at the time of writing the relevant provisions have not yet commenced. For further information on the Planning and Development Act 2024 please see Section 2.6.2 of Chapter 2.

In November 2023, a revision of the Renewable Energy Directive[4] (RED III), came into force. On 26th August 2025, the Department of Housing, Local Government and Heritage published a circular which notifies planning authorities, ACP and other key stakeholders of the transposition of certain articles of the REDIII into law. The provisions of REDIII are broad ranging and include provisions that aim to speed up the permit granting process for renewable energy projects by providing mandatory permit granting timelines for various types of renewable energy projects, as well as provisions concerned with environmental protection Directives and how they are applied to certain renewable energy projects.

The European Union (Planning and Development) (Renewable Energy) Regulations 2025 (S.I. 274 of 2025) have given effect to articles 15e(5), 16, 16b, 16c(2), 16c(3), 16d, 16e and 16f of REDIII, by making amendments to the Planning and Development Act 2000 and the Planning and Development Regulations 2001 to 2025.[5] Please see Section 2.3.1 of Chapter 2 for further details on the Renewable Energy Directive.

A pre-application consultation meeting between the ACP (then An Bord Pleanála) and representatives of BnM and MKO, in relation to the Proposed Project took place on the 23rd September 2021. A second pre-application consultation meeting between ACP and representatives of BnM, SSE Renewables, and MKO took place on the 23rd January 2025. At the meeting MKO presented the various background information in relation to project updates that have occurred since the first pre-application consultation meeting. A third pre-application consultation meeting between ACP and

[3] *Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment*
[4] *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)*
[5] *Department of Housing, Local Government and Heritage (2025) European Union (Planning and Development) (Renewable Energy) Regulations 2025 CEPP 1/2025 <https://www.gov.ie/en/department-of-housing-local-government-and-heritage/circulars/european-union-planning-and-development-renewable-energy-regulations-2025/>*

representatives of Lemanaghan Wind Farm DAC and MKO took place on 10th December 2026. At this meeting MKO presented the key project updates in relation to project design and timelines, with MKO Ecologists and Ornithologists providing further detail on enhancement proposals and survey work carried out on the site. Under REDIII further pre-application consultation was carried out with the National Monuments Service (NMS) and the National Parks and Wildlife Service (NPWS), an overview of the key elements discussed on these meetings were identified to ACP for the purposes of informing the completeness check discussed with ACP. After the third pre-application meeting with ACP, a formal closure requestion was issued on 6th February 2026. On 3rd March 2026 ACP issued a notice to BnM and SSE Renewables indicating its determination that the Proposed Project is SID and, accordingly, an application for permission should be made directly to ACP in accordance with Section 37E of the Planning and Development Act 2000 (Act), as amended. Please see Section 2.8 of Chapter 2 for further detail on all consultation and scoping associated with the Proposed Project.

1.2.1 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 through the amendment of the Planning and Development Act 2000 and the Planning and Development Regulations 2001. Directive 2011/92/EU was amended by Directive 2014/52/EU which has been transposed into Irish law under 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.

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

The EIA of the Proposed Project will be undertaken by ACP, as the competent authority.

Article 5 of the EIA Directive as amended by Directive 2014/52/EU provides where an EIA is required, the developer shall prepare and submit an EIAR. The information to be provided by the developer shall include at least:

a) *a description of the project comprising information on the site, design, size and other relevant features of the project;*
b) *a description of the likely significant effects of the project on the environment;*
c) *a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;*
d) *a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;*
e) *a non-technical summary of the information referred to in points (a) to (d); and*
f) *any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.*

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

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.

The relevant classes/scales of development that normally require EIA are set out in Schedule 5 of the Planning and Development Regulations 2001 to 2019. 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", per Item 3(i) of the Schedule. The proposed development exceeds 5 turbines and 5 megawatts in scale and therefore is subject to EIA.

The EIAR describes the receiving environment, assesses the likely significant effects of the Proposed Project on the receiving environment and proposes mitigation measures to avoid or reduce these effects as well as appropriate monitoring to ensure the efficacy of such mitigation measures. The function of the EIAR is to provide information to allow the competent authority to conduct the EIA of the Proposed Project.

All elements of the Proposed Project have been assessed as part of this EIAR.

1.2.1.1 EIAR Guidance

The Environmental Protection Agency (EPA) published its *'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports'* in May 2022, which is intended to guide practitioners preparing an EIAR in 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 2018 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.

1.2.2 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) have been taken into account during the preparation of this EIAR.

The '*Wind Energy Development Guidelines for Planning Authorities'* (DoEHLG, 2006) (hereafter referred to as 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 Guidelines (December 2019) (hereafter referred to as the 'Draft DoHPLG 2019 Guidelines'). A consultation process in relation to the Draft DoHPLG 2019 Guidelines closed on 19th February 2020. The proposed changes presented in the Draft DoHPLG 2019 Guidelines give certain focus on the recommended setback distance from residential properties (4 times the proposed maximum tip height), along with shadow flicker and noise requirements relative to sensitive receptors.

At time of writing, the Draft DoHPLG 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 those issued in 2006. 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 2025[6], it

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

is possible that the Draft DoHPLG 2019 Guidelines are adopted during the consideration period for the current planning application. Should the Draft DoHPLG 2019 Guidelines be adopted in advance of a planning decision being made on this application, the Proposed Project will be capable adhering to the relevant 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 and Chapter 5, respectively. The Proposed Project achieves 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 currently outlined in the Draft DoHPLG 2019 Guidelines.

1.3 The Applicant

From August 2020 to March 2024, BnM was the sole applicant. In March 2024 BnM and SSE Renewables entered into a joint venture. Therefore, the applicant for the Proposed Project is Lemanaghan Wind Farm DAC representing the joint venture between SSE Renewables and BnM.

SSE Renewables

SSE Renewables is a leading developer and operator of renewable energy generation, focusing on onshore and offshore wind farms, hydro-electric power and flexible storage technologies. It is part of electricity infrastructure company SSE plc, a FTSE-100 company with operations across the UK and Ireland, and a presence in carefully selected international markets. SSE Renewables delivers clean power assets to increase SSE's operational renewable generation capacity as part of the company's five-year investment plan to 2030. This includes delivery of the world's largest offshore wind farm in construction, the 3.6GW Dogger Bank Wind Farm. SSE Renewables operates some of the leading onshore wind farms in Ireland including the 174MW Galway Wind Park in Connemara and the 73MW Slieve Kirk Wind Park outside Derry City.

Bord na Móna

BnM is a publicly owned company, originally established in 1946 to develop and manage some of Ireland's extensive peat resources on an industrial scale, in accordance with government policy at the time. BnM's lands extend to approximately 80,000 hectares in total and are located mainly in the Irish midlands. BnM currently manages and operates a portfolio of thermal and renewable assets, namely Edenderry Power Plant, a peat/biomass co-fired electricity generating unit, Cushaling peaking plant, Cloncreen, Bellacorick, Mountlucas, Bruckana and Oweninny wind farms, Derrinlough wind farm (under construction), Timahoe North solar farm and the Drehid landfill gas facility.

In 2015, BnM published its 'Sustainability Statement 2030', which sets out the company's commitment to transition to peat-free electricity generation by 2030. Renewable energy generation, including solar power, biomass and wind power, is a key component of this transition. In October 2018, BnM announced its strategy to decarbonise, accelerating moves away from its traditional peat business into renewables, resource recovery and new sustainable businesses. BnM's target is for an 80% reduction in carbon emissions by 2030 based on 2015 levels and to accelerate the development of renewable energy by providing up to 2GW of renewable energy generating assets by 2030 in support of national climate and energy policy targets.

BnM has a long track record of developing energy projects, dating back to the development of the first generation of peat-fired power stations. In recent times, the business has gone through radical change, announcing the new "Brown to Green" strategy, committing to the cessation of peat harvesting, and focusing on developing climate solutions in renewable energy, sustainable waste management, carbon storage and biodiversity conservation. A key objective of this strategy involves using the land to continue to underpin Ireland's energy independence by developing green, sustainable energy sources to assist with Ireland's commitment to achieve 70% renewable electricity by 2030.

1.4 Brief Description of the Proposed Project

The Proposed Project will comprise 15 no. wind turbines with a blade tip height of 220 metres above the top of the turbine foundation, and all associated works, and a 220kV substation and associated works, including a total of 0.8km of OHL (comprising 0.4km of OHL double loop-in/loop-out from the proposed onsite 220kV substation to the existing OHL) to connect to the national grid via the Shannonbridge-Maynooth 220kV OHL. The full description of the Proposed Project is detailed in Chapter 4 of this EIAR.

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

(i) *15 no. wind turbines with the following dimensions:*
  a. A total tip height of 220m;
  b. Rotor diameter of 150m;
  c. Hub height of 145m.

(ii) *Permanent turbine foundations, hard-standing and assembly areas;*

(iii) *Underground electrical and communications cabling connecting the 15 no. wind turbines to the proposed 220kV onsite electrical substation;*

(iv) *A new permanent 220kV electrical substation compound (c. 9611m²) in the townland of Cooldorragh consisting of 1 no. Gas Insulated Substation (GIS) building, 1 no. Independent Power Producer (IPP) control building, 2 no. gantry structures, all associated electrical and communications plant and equipment, welfare facilities, 2 no. foul water holding tank, 2 no. bored wells, access roads, security fencing and gates, lightning masts, signage, landscaping, drainage infrastructure and all other ancillary works;*

(v) *A permanent telecommunications tower with a height of 36m and associated foundation and hard-standing area;*

(vi) *The permanent installation of c. 800m of 220kV overhead line, 4 no. new steel masts, temporary tower build areas, temporary tower crane pads and associated hard-standing areas to facilitate the new 'loop-in/loop-out' connection into the existing 220kV Shannonbridge to Maynooth line;*

(vii) *The new permanent overhead line grid connection will require the decommissioning / removal of 1 no. existing steel mast and c. 75m of existing 220 kV line;*

(viii) *A meteorological mast with a height of 145 metres and associated foundation and hard-standing area;*

(ix) *The permanent upgrade of c.1.14km of existing internal site roads/tracks and the provision of c.17.1 km of new permanent internal site access roads, passing bays and a layby area;*

(x) *The permanent upgrade of c.1.8km of existing tracks and the provision of c.3.9km of new permanent tracks for the purposes of amenity, seating areas, and amenity signage;*

(xi) *The provision of temporary access track off the L7001 local road during the construction phase;*

(xii) *Removal of an existing agricultural shed to accommodate the new temporary access track off the L7001 local road;*

(xiii) *2 no. new gated site entrances off the L7002 local road;*

(xiv) *Upgrade of 3 no. existing site entrances off the N62 national road, R436 regional road and L7001 local road;*

(xv) *A temporary access track from the N52 national road to the N62 national road at Kennedy's Cross in the townland of Ballindown to facilitate the delivery of turbine components and other abnormal loads;*

(xvi) *5 no. temporary construction compounds with temporary offices, containers and staff facilities;*

(xvii) *3 no. permanent amenity car parks each including 15 no. spaces for private vehicles, 3 no. spaces for accessible parking, parking for buses and bicycle rack facilities;*

(xviii) *4 no. temporary borrow pits;*

(xix) 5 no. temporary security cabins;
(xx) 2 no. clear span watercourse crossings;
(xxi) Peat and Spoil Management;
(xxii) Site Drainage;
(xxiii) Removal of c.1.02ha of immature woodland and c.0.64 hectares of scrub;
(xxiv) Biodiversity management and enhancement measures;
(xxv) Operational stage site signage; and
(xxvi) All ancillary apparatus and site development works above and below ground, including hard and soft landscaping and drainage infrastructure.

The applicant is seeking a 10-year planning permission for the development and 35-year operational life from the date of commissioning of the renewable energy development.

Current and future wind turbine generator technology will ensure that the wind turbine model chosen for the Proposed Project will have an operational lifespan greater than the 35-year operational life that is being sought as part of the planning application.

Modern onshore wind turbine generators currently have a typical 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 an output of approximately 6MW. Therefore, on this basis, the proposed 15 no. wind turbines would have a combined generating capacity of approximately 90MW. The actual turbine procured as part of a competitive tender process may have a power output 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 3.2.5.2.2 of Chapter 3: Site Selection and 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. In addition, there are no inhabitable dwellings located closer than 4 times the maximum turbine tip height (i.e. within 880 metres) of any proposed turbine location. There are 21 inhabitable dwellings located within 1 kilometre of proposed turbine locations, with the closest inhabitable dwelling located 896m from the nearest proposed turbine (T10). The constraints mapping process is outlined in Chapter 3 of this EIAR.

The Proposed Project will require approximately 18km of internal road network (comprising upgrades to existing access roads and proposed new site roads) that will have a dual function of providing amenity access throughout the site and providing access for service and maintenance vehicles during wind farm operation. In addition to this, 4km of new/upgraded dedicated amenity paths will be provided. A total of 3 no. public car parks with approximately 18 spaces per car park (15 no. standard spots and 3 no. accessible parking) will be provided during the operational phase of the Proposed Project for amenity purposes. Please see Appendix 4-2 Lemanaghan Wind Farm Amenity Plan for further details on amenity proposals at the site.

Industrial scale peat extraction was permanently ceased by the BnM at the Proposed Project site in June 2020. From June 2020 until the end of 2024, all remaining stockpiled peat was systematically removed from the Proposed Project site. BnM's statutory duties to discharge the conditions of its Integrated Pollution Control Licence (IPC) Licence (Ref. P0500-01; hereafter "IPC Licence"), from the Environmental Protection Agency for the Boora Bog Group, which encompasses part of the Proposed Project site, remain on-going. These ongoing duties, such as environmental monitoring, do not facilitate the continuation of peat extraction, but rather ensure compliance with BnM's extant IPC Licence. As part of Condition 10 of BnM's IPC Licence, decommissioning work is currently being carried out on the site. Proposed rehabilitation will primarily involve drain blocking to raise water levels to the surface of the bog and to encourage the natural colonisation of vegetation. Please see Appendix 2-4 for details of the Cutaway Bog Decommissioning and Rehabilitation Plan (2024) (Draft Rehabilitation Plan) for further information on the planned rehabilitation for the Proposed Project site, inclusive of 'standard'

rehabilitation per condition 10 of IPC License P0500-01. Irrespective of any further development on the site, BnM's statutory duties to discharge the conditions of its IPC Licence will remain ongoing and the measures outlined in the Draft Rehabilitation Plan will be implemented by BnM in agreement with the EPA, per BnM IPC Licence Obligations.

It is proposed to construct an onsite 220kV electricity substation within the Proposed Project site. The proposed onsite 220kV substation is located in the north of the site, in the townland of Cooldorragh within proximity to the existing Shannonbridge-Maynooth 220kV OHL. During the operational phase EirGrid and ESB Networks will access the Proposed Grid Connection onsite 220kV substation and associated infrastructure from the L7002 running south of the Proposed Grid Connection through the Proposed Project site; this road is accessible from the N62 which runs along the western boundary of the Proposed Project site.

The Proposed Project will require accommodation works for the construction of a short bypass, located just north of the existing Kennedy Cross junction between the N52 and N62 National Secondary Routes, for the purposes of abnormal load delivery. The bypass will measure approximately 160 metres and will only be in use during the turbine delivery stage of the Proposed Project after which the existing boundaries will be reinstated to its current condition as an agricultural field. During the operational phase of the Proposed Project, the bypass will only be used for the delivery of abnormal loads (e.g., wind turbine components such as blades) to the site, should they be required, and the boundaries reinstated when not in use.

1.5 Need for the Proposed Project

1.5.1 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 2024[7] 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*'[8] 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 ($MtCO_2eq$) which is 2% lower than emissions in 2023 (55.01 $MtCO_2eq$). 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.

[7] *Department of Environment, Climate and Communications (2023) Climate Action Plan 2024*
[8] *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 >*

The critical need for renewable energy is underscored by European legislation. The third Renewable Energy Directive (RED III)[9] 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) 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 2024 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.*

These factors are addressed in further detail below. Section 2.3 in Chapter 2 of this EIAR on Background to the Proposed Project, presents a full description of the international and national renewable energy policy context for the project. Section 2.4 addresses climate change, including Ireland's current status with regard to meeting greenhouse gas emission reduction targets.

In March 2025, the World Meteorological Organisation (WMO) published the State of the Global Climate 2024 Report[10]; an update for the United Nations Framework Convention on Climate Change (UNFCCC) 30th Conference of the Parties was published in November 2025.[11] The 2024 Report provides a summary on the state of the climate indicators in 2024 and with sections on key climate indicators, extreme events and impacts. The key messages in the report include:

- Greenhouse gases reached record observed levels in 2023. Real time data indicate that the levels continued to rise in 2024.
- January – September 2024 global mean surface air temperature was 1.54 ± 0.13°C above the pre-industrial average.

[9] *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.*
[10] *World Meteorological Organisation (2025) State of the Global Climate 2024* <https://library.wmo.int/records/item/69455-state-of-the-global-climate-2024>
[11] *World Meteorological Organisation (2025) State of the Global Climate Update for COP30* <https://wmo.int/publication-series/state-of-climate-update-cop30>

- Glacier mass loss from 2021/2022 to 2023/2024 represents the most negative three-year glacier mass balance on record, and seven of the ten most negative annual glacier mass balances since 1950 have occurred since 2016.
- The strong 2023/2024 El Niño followed three consecutive years of La Niña from late 2020 to early 2023.
    - El Niño conditions were established by mid-2023, became strong by the end of 2023 and dissipated by the second quarter of 2024
- Extreme weather continued to lead to severe socio-economic impacts. Extreme heat affected many parts of the world.
- Food security, population displacement and impacts on vulnerable populations continue to be of mounting concern in 2024, with weather and climate hazards exacerbating the situation in many parts of the world.

There has been a substantial worldwide energy transition, with renewable capacity additions increasing by nearly 60% from 2022, totalling 565 gigawatts (GW).[12] 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 UNFCCC 28th Conference of the Parties (COP28) meeting in 2023, and reiterated at the 30th Conference of the Parties (COP30) in Belém in 2025, to triple renewable energy capacity globally to 11,000 GW by 2030. Electricity generation from renewables is expected to increase 60% – from 9,900 TWh in 2024 to 16,200 TWh in 2030 with renewables expected to surpass coal by mid-2026 at the latest to become the largest source of electricity generation globally. Solar PV and wind together account for 96% of all renewable capacity growth through the end of this decade due their growing economic attractiveness in almost all countries.

The November 2025 update for COP30 identifies that 2025 is set to either be the second or third warmest year on record, with the global mean temperature for January 2025 to August 2025 being 1.42 ± 0.12 °C above pre-industrial levels, underscoring the accelerating pace of climate change.

The recent joint publication of WMO and International Renewable Energy Agency on Climate-driven Global Renewable Energy Potential Resources and Energy Demand in 2023[13] 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.

1.5.1.1 Climate Change and Greenhouse Gas Emissions

Climate Change and Peatlands

Aligned with CAP25, the Applicant's vision is for a climate-neutral Ireland by 2050. To help achieve this vision, the Applicant is undertaking a number of highly significant actions in such as renewable energy developments and peatland rehabilitation as discussed above. These actions involve a radical transformation and decarbonisation of BnM's business activities. In addition, the Applicant's pipeline of renewable energy projects, inclusive of the Proposed Project, aligns with Government climate and energy policies in relation to climate mitigation and adaption and will complement and co-exist on some sites with enhanced peatland rehabilitation, as discussed above in Section 1.1. For the avoidance of doubt, no area developed for renewable energy projects (i.e., the specific renewable energy infrastructure footprint) will be subject to support from the scheme albeit they may lie on adjoining areas or within the same site.

[12] *IEA (2024), Renewables 2024, IEA, Paris <https://iea.blob.core.windows.net/assets/17033b62-07a5-4144-8dd0-651cdb6caa24/Renewables2024.pdf>*
[13] *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>*

Rewetting of drained peatlands can lead to restoration of functional peatland aspects, such as the return of typical peatland species, which in turn may lead to the restoration of peat formation and the carbon sink function. The carbon emission mitigation benefits associated with renewable energy coexisting alongside rehabilitated peatland will make a significant contribution to achieving the State's carbon emission reduction target. A BnM bog in Co. Galway is now a net carbon sink in rewetted areas 8 years after rehabilitation was carried out. Further research (Wilson et al. 2022)[14] at the bog concluded that rapid rewetting of drained peatland sites is important to (a) achieve strong carbon emissions reductions, (b) establish optimal conditions for carbon sequestration and (c) set the site on a climate-cooling trajectory.

The development of the Proposed Project on peatlands will underpin Ireland's energy independence by developing green, sustainable energy sources to assist with Ireland's commitment to reach a 51% reduction in national greenhouse gas emissions relative to 2018 baseline by 2030. The permanent infrastructural footprint of the Proposed Project is very small relative to the overall size of the site (approximately 3%). Once constructed, it is intended to rehabilitate Lemanaghan Bog (Appendix 2-4) in and around the Proposed Project infrastructure: as an example, the rehabilitation plan for Cloncreen Bog has largely been completed, began while turbine erection was being carried out in 2022 and continued monitoring of the site is ongoing.

Climate Change and Greenhouse Gas Emissions in Ireland

At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The 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 agreement, governments also agreed on the need for global emissions to peak as soon as possible, recognising that this will take longer for developing countries and to undertake rapid reductions thereafter in accordance with the best available science. The 2023 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. The most recent climate conference (COP30) held in Belém, Brazil in November 2025 adopted a comprehensive 'Belém Package', comprising 29 decisions by consensus, which underscored an emphasis on implementation and equity. The conference advanced land-use and mitigation governance through a proposed Forest and Climate Roadmap and operationalisation of the Tropical Forests Forever Facility, reflecting the essential role of deforestation reduction in maintaining a viable 1.5 °C pathway. On adaptation, Parties adopted 59 indicators for the Global Goal on Adaptation and agreed to triple adaptation finance by 2035, establishing the first internationally standardised framework for assessing resilience progress. At COP30, 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. During the conference, a coalition of more than 80 willing countries, including the EU and its Member States, launched a partnership to transition away from fossil fuels under Brazil's leadership.

In March 2021 the Irish Government approved the Climate Action and Low Carbon Development (Amendment) Bill which provides plans to facilitate the '*transition to a climate resilient and climate neutral economy by the end of year 2050*'[15] 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

[14] *Wilson et al 2022 Carbon and climate implications of rewetting a raised bog in Ireland Global Change Biology Volume 28, Issue 21.*
[15] *Rialtas na Éireann 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/

licences for the exploration and extraction of gas. The Bill, entitled an Act, was passed into law in July 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 (the Act) 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.'*

A High Court judgment delivered by Mr Justice Humphreys on the 10th January 2025 (*Coolglass Wind Farm Limited v An Bord Pleanála [2025] IEHC 1)* concluded that the Commission was obliged, under Section 15 of the Climate Act, to depart from the terms of the County Development Plan in order ot favour development which is more likely to enable Ireland to meet its climate objectives, unless it was impractical to do so.

In the judgement, Mr Justice Humphreys undertook a detailed consideration of the interpretation of section 15 of the Climate Act and concluded that:

> *"...all vectors of interpretation point strongly in the same direction – the need for an imperative reading of s. 15(1) in line with what it says, namely that the board and any other relevant body is required to act in conformity with the climate plans and objectives set out in the subsection unless it is impracticable to do so....*
>
> *That does not mean allowing an application which is prohibited by law. That wouldn't be practicable apart from anything else. But it does mean exercising discretionary and evaluative powers in whatever way is most likely to be consistent with the relevant plans and objectives.'*

As part of Mr Justice Humphreys' consideration of the interpretation of section 15 of the Climate Act, he states in his judgement that "*an immediate end to business as usual is a precondition for planetary survival"*. In summary, section 15 of the Climate Action and Low Carbon Development (Amendment) Act 2021 requires the relevant authority to engage in its own independent consideration of the impact of a proposed development on the State achieving its climate targets and to exercise its discretion in a manner which supports the achievement of those targets.[16]

The High Court judgment was appealed, and the Supreme Court gave judgement on the 4th of February 2026. While the Supreme upheld the High Court's decision to quash the permission, it did so on narrower grounds than those on which the High Court based its conclusions. The Supreme Court analysed the meaning of the wording of Section 15, focusing on the implications of the words 'functions', 'consistent with' and 'in so far as practicable'. It held that Section 15 does not create new functions for relevant bodies. It is the existing function, in this case the decision-making function of the Commission, which must be carried out in a manner consistent with section 15(1). The obligations under 'Consistent with' were interpreted by the Supreme Court as opposed to the High Court's interpretation as a strict 'comply with' obligation. The Supreme Court also noted that the obligation to

[16] *Beauchamps [2025]* https://beauchamps.ie/publications/1327

perform a function "consistent with" the climate objectives is itself qualified by the phrase "in so far as practicable". Please see Section 2.2.2 of Chapter 2 for further information.

The Intergovernmental Panel on Climate Change (IPCC) put forward a clear assessment in its Fifth Assessment Report[17], 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 COP21 agreement to limit global warming to well below 2ºC 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 IPCC released the report 'Working Group II-Climate Change 2022: Impacts, Adaptation and Vulnerability' 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 CO_2 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:

- Key Risk 1: Mortality and morbidity of people and changes in ecosystems due to heat;
- Key Risk 2: Heat and drought stress on crops;
- Key Risk 3: Water scarcity;
- 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', 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 Working Group-III contribution to the IPCC's Fifth Assessment Report (AR5), the Working Group-I and Working Group-II contributions to Sixth Assessment Report (AR6) and the three Special Reports[18] 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*'[19], and is the final product of the AR6 of the IPCC. It summarises the state of knowledge of climate change, its 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 Nationally Determined Contributions (NDCs) announced prior to COP26. Parties to the Paris Agreement have two years to submit updated NDCs for the period up to 2035, and ambitions will need to be ratchetted up in order to limit warming to 1.5°C.

In May 2025, the EPA[20] reported, for the year 2023, that the energy sector contributed to 14.3% of Ireland's total emissions. The latest EPA projections show that currently implemented policies and

[17] *IPCC Fifth Assessment Synthesis Report, Intergovernmental Panel on Climate Change AR5 Report*
[18] *The three Special Reports are: Global Warming of 1.5°C: an IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (2018); Climate Change and Land: an IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems (2019); IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (2019)*
[19] *IPCC Sixth Assessment Synthesis Report, Intergovernmental Panel on Climate Change AR6 Report: Climate Change 2023*
[20] *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> >*

measures (WEM: with existing measures) will result in Ireland achieving a total greenhouse gas 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.[21] If policies and measures in the higher ambition (WAM: with additional measures) 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 '*National Energy Projections 2025*'[22], published annually by the Sustainable Energy Authority of Ireland (SEAI), state that in the 'With Existing Measures' and 'With Additional Measures' scenarios, greenhouse gas emissions from the combined energy use and process emissions sectors are projected to exceed the first carbon budget ceiling by approximately 4% by 2025. This overshoot means that 7% of the second carbon budget will be consumed before the period begins. The second sectoral ceiling is then projected to be exceeded in 2029, by 14% to 17% in the WAM and WEM scenarios, respectively.

By 2028 it is expected that the largest input to electricity will be by renewable energy, i.e., onshore wind, offshore wind and solar. 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 to achieve national and international greenhouse gas emission targets. The SEAI National Energy Projections state that the projected exceedance in the first carbon budget period for energy sectors and industrial processes has decreased from the 2024 projections, while the projected exceedance in the second carbon budget has increased. By the end of the second budget period, the total exceedance in the electricity sector is projected to be 2MtCO_2eq and 4MtCO_2eq in the WAM and WEM scenarios, respectively. The main driver of this change from last year is the electricity sector, which has experienced higher levels of imports through interconnection in recent years. This net imports behaviour is projected to continue in the near term, but the electricity sector is also subject to projected delays in the installation of renewable capacity by 2030.

It is estimated that the Proposed Project, with a potential installed capacity of 90MW, will result in the net displacement of approximately 56,375 tonnes of Carbon Dioxide (CO_2) per annum (Against EU FFC). Detailed information on the carbon offsets resulting from the Proposed Project are provided in Section 11.4.3.2 of Chapter 11 of this EIAR: Climate.

1.5.2 Energy Security

At a national level, Ireland currently has one of the highest external dependencies on imported sources. In July 2024 the SEAI published '*Irelands Energy Supply and Security of Supply in 2023*'[23], which identifies that in 2023, Ireland's national primary energy requirement remained heavily fossil dependent, with 82.8% of energy requirement satisfied by fossil fuels. Ireland's use of fossil fuels reached its lowest level in 2023 for over 20 years, outside the exceptional year of 2020, when COVID-related travel restrictions significantly reduced demand for petrol, diesel, and jet kerosene. Conversely, 2023 saw record high use of renewable energy in Ireland.[24]

[21] *Ireland's 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>
[22] *SEAI National Energy Projections 2025 Report.* <https://www.seai.ie/sites/default/files/publications/National-Energy-Projections-Report-2025.pdf>
[23] *SEAI (July 2024) Irelands Energy Supply and Security of Supply in 2023* <https://www.seai.ie/data-and-insights/seai-statistics/key-publications/energy-supply-security>
[24] *Ibid.*

The Department of the Environment, Climate and Communications (DECC) report '*Energy Security in Ireland to 2030*'[25] states that '*Irelands 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 Irelands energy security. Ireland is currently one of the most energy import dependent countries in the EU, having imported 78.5% of its energy supply in 2023.[26]

The '*Energy Security in Ireland to 2030'* 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 its '*All Island Generation Capacity Statement 2022 - 2031'* (October 2022) states that new wind farms commissioned in Ireland in 2021 brought total wind installed capacity to over 4,300MW, contributing to the overall RES-E (electricity from renewable energy sources) percentage of 36.4% with wind energy accounting for 32.5%. 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 Ireland is adding new renewable sources.

In December 2025 the SEAI published its '*Energy in Ireland 2024 Report*'[27], stating that in 2025, wind energy was responsible for 33.8% of primary energy production in Ireland, with natural gas accounting for 29.6% of the share of primary energy production. After natural gas, which consisted of 42% of electricity supply in Ireland, wind energy was the second largest source of electricity supply at 32%. The SEAI Energy in Ireland 2025 report, states that energy-related emissions were at their lowest level in over 30 years, down 1.5% from 2023 levels.

In 2024, Ireland generated 24.5 TWh of renewable energy, up 5.6% from the previous year. The largest source of renewable energy supply for electricity generation was wind generation. In 2024, Ireland had 4.94 GW of installed wind capacity, up 4.3% on the previous year. SEAI's provisional estimate for installed wind capacity in 2025 is 5.4 GW, based on the WAM scenario. When all data from 2025 is recorded an updated carbon intensity factor for the Irish national grid will be published. Currently, the SEAI website has a published value of 229.9gCO2/kWh for electricity generation and 254.8gCO2/kWh for electricity consumption.[28] These are the lowest carbon intensity values ever reached in Ireland.

On 21st May 2025 the SEAI published the Interim Energy Balance for 2024.[29] The interim figures identify that 2024 had the lowest energy emissions that Ireland has experience in over 30 years. This marks an overall decrease of 11% since carbon emissions targets were introduced in 2021 and the third consecutive year with an emissions reduction. This drop in emissions comes, despite an increase in overall energy use – which grew by 2.3% last year. Increased use of bioenergy and technologies such as solar PV and heat-pumps meant that renewable energy supplied 14.5% of Ireland's energy requirements last year, a slight increase on last year's figure of 14%. It is important to note that although renewable generation capacity increased from 2023, renewables supplied a slightly lower share of Ireland's electricity in 2024 than in 2023. This is explained by the increase in electricity demand outpacing the increase in renewable generation, as well as grid constraints and lower wind outputs. The top three sources of electricity in Ireland last year were natural gas (42.1%), wind (31.7%), and net-imports from interconnectors (14%).

Electricity demand in Ireland rose by 1.24 TWh in 2023. This net increase was strongly led by a 1.15 TWh increase in demand from the commercial services sector, which includes data centres. The

[25] *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>
[26] *SEAI (July 2024) Irelands Energy Supply and Security of Supply in 2023* <https://www.seai.ie/data-and-insights/seai-statistics/key-publications/energy-supply-security>
[27] *Sustainable Energy Authority Ireland (2025) Energy in Ireland – 2025 Report* <https://www.seai.ie/sites/default/files/publications/Energy-in-Ireland-2025.pdf>
[28] https://www.seai.ie/data-and-insights/seai-statistics/conversion-factors/
[29] https://www.seai.ie/news-and-events/news/seai-interim-national-energy-balance-2024

Energy in Ireland 2024 Report states: '*Ireland must rapidly transform its economy and society to one based on sustainable energy technologies, like wind and solar farms, bioenergy, district heating schemes, electric vehicles, and heat-pumps. We must also reduce energy demand by making our technologies and practices more energy efficient, and by making behavioural changes that reduce our day-to-day energy demand across heat, electricity, and transport.*'

Ireland continues to be hugely dependent on energy imports, 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. 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"*[30].

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 5% of Ireland's electricity, while gas generates 51%. Climate Action Plan 2024 calls for a reduction of 75% in electricity-related emissions to not exceed the carbon budget allocations. 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 2015[31] ('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".*

1.5.2.1 REPowerEU

In a Communication from the European Parliament on Joint European Action for more affordable, secure and sustainable energy[32], the European Commission proposed an outline of a plan to make Europe independent from Russian fossil fuels well before 2030 in response to 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 Plan[33] in response to Russia's February 2022 invasion of Ukraine. 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 its 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

[30] *Dr Eimear Cotter, Head of Low Carbon Technologies, SEAI - "Energy Security in Ireland 2015"*
[31] *Ireland's Transition to a Low Carbon Energy Future 2015-2030 (Department of Communications, Energy & Natural Resources, 2015)*
[32] *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
[33] https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

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.

1.5.2.2 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 22nd December 2022. Regulation 2022/2577 came into effect on the 23rd December 2022 and has effect until the 30th 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 22nd December 2023 amending Regulation 2022/2577. Regulation 2022/2577 and 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 of this EIAR. As a renewable energy project, the Proposed 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.

1.5.3 Competitiveness of Wind Energy

While Ireland has a range of renewable resources, as the Energy White Paper states that "[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.

1.5.4 European Renewable Energy Policy and Targets

1.5.4.1 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 the Renewable Energy Directive (2018/2001 EU) on the Promotion of the Use of Energy from Renewable Sources in December 2018 which sets EU 2030 Renewable Energy Targets.

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)[34] 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 (REDII),[35] 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 the total renewable share of gross final consumption (GFC) reaching 13.5%. REDII 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. Per the National Energy and Climate Plan (NECP) 2021-2030, Ireland's overall RES target is 34.1% in 2030.

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 REDII, 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 Climate Action Plan (2024), 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 2030[36]. 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 European 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 emissions by at least 55% by 2030, compared to 1990 levels and to achieve climate neutrality in the European Union by 2050.

1.5.5 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). Under the 2021 Act, Ireland's national climate objective requires the state to pursue and

[34] *Directive 2009/28/EC on the promotion of the use of energy from renewable sources. Available from: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:en:PDF*
[35] *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*
[36] *European Commission 2023 Renewable Energy Directive < https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en >*

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.

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 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 Irish Government published 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. The SEAI provides a provisional estimate of installed wind energy capacity in 2023 based on EirGrid data to the end of August and ESBN data to the end of September. Please note, Ireland's installed capacity for wind generation in January 2025 was 4.9GW.[37] 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 Section 2.2.1.

1.5.6 Increasing Energy Consumption

As detailed above, CAP25 reaffirms the need for 9GW of onshore wind generation in order for Ireland to meet its 2030 targets. CAP25 further identified that the revised National Planning Framework[38] 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 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 the current installed energised capacity.[39]

In its '*All Island Generation Capacity Statement 2022 - 2031'* (October 2022), EirGrid estimates 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 its report 'Future Expenditure Risks associated with Climate Change/Climate Finance' concluded that *'potential costs of purchasing non-ETS [greenhouse gas] 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 decided to backfill shortfalls in the RES-H target with additional renewable electricity, it could significantly reduce these costs.

[37] *EirGrid, https://www.eirgrid.ie/grid/system-and-renewable-data-reports*
[38] *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/>*
[39] *Ibid.*

In April 2016[40] the SEAI estimated the historic build rate for wind energy deployment as 180 MW per year since 2005. If this average build rate over the remaining period between 2018 and 2020 is assumed, then approximately 3.85 GW of wind would be built up to 2020. The SEAI has provided a provisional estimate of wind capacity in Ireland in 2025 to be 5.4GW.[41]

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*'. Analysis by EirGrid 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 for last year's forecast for high demand, indicating the progression of many of the data centre projects.

In 2015, IWEA commissioned a study '*Data Centre Implications for Energy Use in Ireland'* which concluded that an extra approx. 1 GW of electricity demand could materialise between 2015 and 2020 due to growth in data centres. More recently, data available from Bitpower[42] 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. DECC has 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 its 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. The SEAI estimates that the shortfall could be in the region of 1% to 5% of the 12% RES-H target[43]. 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, with one report recently published by the Irish Fiscal Advisory Council and the Climate Change Advisory Council stating that '*[Ireland] may have to pay out €8 to €26 billion to its EU Partners if it does not step up on climate action it has agreed to.*'[44] 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. An electricity system powered primarily by renewable sources is the foundation of such a transformation.

The Energy 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,

[40] https://www.seai.ie/publications/Irelands-Energy-Targets-Progress-Ambition-and-Impacts.pdf
[41] *Sustainable Energy Authority of Ireland (2024) Energy in Ireland – 2023 Report*
[42] https://bitpower.ie/images/Reports/2021_H1_Report.pdf
[43] https://www.seai.ie/sites/default/files/publications/Achieving-Ireland-s-2020-Renewable-Heat-Target.pdf
[44] *IFAC / CCAC (2025) A Colossal Missed Opportunity* <https://www.fiscalcouncil.ie/a-colossal-missed-opportunity/>

'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'*.

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

> *"(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 has 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 is provided in Chapter 2, Section 2.2.1.

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 of SEAI[45] 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 conversion of Moneypoint from coal to biomass fuel would not represent a clean swap. In fact, '*to allow for combustion of biomass, a full redesign and rebuild of much of the station would be required*'[46]. In Ireland the current per-unit cost of electricity is approximately 38 cents (inclusive of taxes), however despite the rise in energy costs wind energy remains the most cost-efficient option in Ireland.[47]

Importation raises the question: would this be cost effective? With prices volatile and the availability of biomass 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 farther the biomass is

[45] http://www.seai.ie/News_Events/Press_Releases/2014/Biomass-is-a-big-part-of-the-solution-but-not-the-whole-solution.html
[46] *Ibid.*
[47] https://www.askaboutireland.ie/enfo/irelands-environment/energy/re/?utm_source=chatgpt.com

transported, the greater the greenhouse gas emissions[48]. 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 requiring the development of renewable energy to avoid substantial fines.[49]

The Joint Committee on Climate Action published its cross-party report entitled, '*Climate Change: A Cross- Party Consensus for Action'* (March 2019). This report highlights the requirements for alternative 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 BnM and ESB stations by 2030. It should be noted that the last peat-fired station owned by BnM, i.e., Edenderry Power, ceased all burning activities in December 2019. In April 2025, the DECC published CAP25 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. CAP25 notes the need for renewable alternatives to coal and peat. Further information on CAP25 is provided in Chapter 2.

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% over the same period.

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 1.5.2.2 above, EU Regulation 2022/2577 as amended by Regulation 2024/223[50] identifies the priority that should be afforded renewable energy development whenever the balancing

[48] *Sustainability Criteria Options and Impacts for Irish Bioenergy Resources (SEAI 2019)*
[49] https://www.fiscalcouncil.ie/wp-content/uploads/2025/03/Irelands-climate-action-and-the-potential-costs-of-missing-targets.pdf
[50] *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 >

of legal interests is required in individual cases and where those projects introduce additional 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.

1.5.7 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 Energy White Paper in 2015 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 Wind Farm will displace approximately 56,375 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.

The World Health Organisation (WHO) in 2019 estimated that ambient (outdoor) air pollution caused 4.2 million deaths worldwide in 2019.[51] The Environmental Protection Agency (EPA) report '*Air Quality in Ireland 2024*[52] noted that in Ireland, the premature deaths attributable to poor air quality are estimated at 1,700 people per annum.. The European Environmental Agency (EEA) Report, '*Air Quality in Europe – 2022 Report*'[53] 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 NO_2 and O_3 concentrations in 2021 were around 49,000 and 24,000 premature deaths per year, respectively. Of these, 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_2) and 70 Irish deaths attributed to Ozone (O_3). 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 Status[54] 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, despite constant improvements, exceedances of air quality standards are common across the EU, with concentrations well above the latest WHO recommendations.

The EPA 2020 report '*Ireland's Environment – An Assessment*'[55] states that the pollutants of most concern are NOx, (the collective term for the gases nitric oxide and nitrogen dioxide, PM (particulate matter) and O_3 (ozone). The EPA 2020 report goes on to state that:

[51] https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health
[52] *Air Quality in Ireland Report 2024* <https://www.epa.ie/publications/monitoring–assessment/air/air-quality-in-ireland-2024.php>
[53] *Air Quality in Europe 2022* <https://www.eea.europa.eu/publications/air-quality-in-europe-2022>
[54] *EEA (2024) Europe's Air Quality Status 2023* <https://www.eea.europa.eu/publications/europes-air-quality-status-2023>
[55] *Ireland's Environment – An Assessment (2016)* <https://epawebapp.epa.ie/ebooks/soe2016/files/assets/basic-html/page-1.html#>

"Ireland has excellent indigenous renewable energy resources, and renewable energy is playing an increasing role in the domestic energy supply. Ireland has more onshore (land-based) and offshore energy potential than most other European countries.

Energy from non-combustion sources, such as hydropower, wind or solar energy, and use of hydrogen, do not give rise to combustion-related impacts."

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 (CO_2), oxides of nitrogen (NO_x), and sulphur dioxide SO_2, thereby resulting in cleaner air and associated positive health effects.

1.5.8 Economic Benefits

In addition to helping Ireland avoid significant fines and reducing environmentally damaging emissions, the Proposed Project will have significant economic benefits. As a nation, 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 2025*', Ireland has a high import dependence on oil and gas and is essentially a price-taker on these commodities. Irelands import dependency increased slightly 78% in 2023 to 79.5% in 2024 due to increased primary energy requirement and decreased in primary energy production.[56] From October 2024 to September 2025, Ireland imported 79.5% of its gas supply and supplied 20.5% of its gas supply from indigenous sources.

The '*Energy in Ireland 2025 Report*'[57] stated that Ireland's national energy-related emissions in 2024 were at their lowest level in over 30 years with 14.6% of Ireland primary energy being sourced from renewables, the highest value to date. The SEAI estimates electricity emissions to be 6.9MtCO_2e in 2024, down 8.3% from 2023.

In April 2021, Wind Energy Ireland published a report produced by KPMG on the '*Economic Impact of Onshore Wind in Ireland*' 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 is 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.

In February 2025 Wind Energy Ireland identified that spending on gas for electricity in Ireland was cut by almost €1 billion as wind supplied approx. 32% of Ireland's electricity. Irish wind farms saved €748 million euro on gas, which would have been predominantly imported, and a further €268 million in carbon credits in Ireland. An additional €213 million euro was saved on gas and carbon credits in Northern Ireland, bringing total all-island savings to more than €1.2 billion.[58]

The Proposed Project will be capable of providing power to approximately 65,700 Irish households with electricity per year, based on the average Irish household using 4.2 MWh of electricity[59], as presented in the calculations in Section 4.4.1.1.7 of this EIAR.

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[56] *SEAI (2025) Energy in Ireland – 2025*
[57] *Ibid.*
[58] *Wind Energy Ireland (2025)* https://windenergyireland.com/latest-news/7836-wind-energy-saved-ireland-over-1-2-billion-on-gas-in-2024
[59] *March 2017 CER (CRU) Review of Typical Consumption Figures Decision Paper* https://www.cru.ie/document_group/review-of-typical-consumption-figures-decision-paper/

The Proposed Project will help to supply the rising demand for electricity, resulting from renewed economic growth. The EirGrid report '*All-Island Generation Capacity Statement 2022 – 2031'* (October 2022) notes that the median electricity demand forecast on the island of Ireland is expected to grow by 21% in 2031. Much of this growth is expected to come from new data centres in Ireland.

The Proposed Project will have both long-term and short-term benefits for the local economy including additional income to local landowners, job creation, work opportunities for local businesses and service providers, local authority commercial rate payments and a Community Benefit Scheme.

Additional commercial rate payments from the Proposed Project will be provided to Offaly County Council each year, which will be redirected to the provision of public services within Co. Offaly. 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.

1.5.8.1 Community Gain

The Proposed Project will be capable of providing producing electrical energy equivalent to the annual demand of to approximately 65,700 Irish households every year, as presented in the calculations in Section 4.4.1.1.7 of this EIAR.

In 2021, The Department of the Environment, Climate and Communications, published the Renewable Energy Support Scheme Good Practice Principle Handbook, outlining how community funds should be managed, operated, and distributed to wind and solar projects that are successful in the Renewable Energy Support Scheme (RESS) Auctions. This was further updated to a revised Rulebook in May 2025 (which may be subject to change at the Department's discretion).

Under the current Rulebook – Community Benefit Funds must be distributed as follows:

- Near Neighbour:
  - The payment to all households within 1 km of a turbine is set out as a mandated fixed annual payment of €1,000 and shall be paid by the end of the first year of commercial operation.
  - Households located further than 1 km from the RESS Project but within a distance of 2 km from such RESS Project shall receive an annual payment of an amount lower than €1,000 but higher than €500. The value of this payment shall be calculated using the following formula, and rounded to the nearest euro: Amount in Euro = 1500 - (0.5 x [Distance in metres])
  - The total amounts allocated to direct payments to households shall be limited to 50% of the total annual contributions from the Community Benefit Fund.
- Administration:
  - Up to 10% of the value of the Fund over the entire period (20% in Year 1) in which the RESS Project is required to maintain the Community Benefit Fund may be used to cover administration costs.
- Community Projects:
  - A minimum of 40% of Funds to initiatives where the primary focus is the promotion of the delivery of the UN Sustainable Development Goals ("SDGs") successful in an open application process, as proposed by enterprises, clubs and societies, and similar not for-profit community enterprises (including scholarships). A particular emphasis on Goals 4, 7, 11 and 13 - Quality Education, Affordable and Clean Energy, Sustainable Cities and Communities and Climate Action. However, projects are eligible for funding if they promote at least one of the United Nations SDGs.

Further details on the Community Benefit proposals are presented in Chapter 4 of this EIAR.

1.5.8.1.1 *Recreational Benefits*

In addition to the economic and environmental benefits of the Proposed Project, there will be potential social and recreational benefits associated with the Lemanaghan Wind Farm Amenity Plan (Appendix 4-2).

The Proposed Wind Farm creates a unique opportunity to develop an amenity area for use by members of the local and wider community alike, as well as tourists. The peatland habitat within the bogs is attractive to both locals and visitors to the area because of its history and variety of vegetation. The Proposed Project will upgrade approximately 1.14km of existing road and provide approximately 17.1km of new internal site access roads to be used for amenity purposes such as walkways and cycleways when the Proposed Wind Farm is operational. An additional 3.9km of new dedicated amenity link, along with the further upgrade of approximately 1.8km of existing track for the purposes of amenity is also proposed to provide a greater variety of walking loops. The Proposed Wind Farm roads (21km) will be open to the public for walking and cycling and an additional 4km of dedicated amenity tracks will be added/upgraded. This proposal will provide a safe site and openly available recreational area for walkers, trail runners, cyclists and other recreational users, as outlined in Appendix 4-2, Lemanaghan Wind Farm Amenity Plan, of this EIAR. The Proposed Project will also facilitate linkages to the wider area and to both existing and proposed amenity walkways as part of the Midlands Trail Network (please see Section 4.4.1.9 of Chapter 4 for further details). Interpretation and orientation signage will be strategically located throughout the Proposed Wind Farm to guide, inform, and maximise enjoyment of the Proposed Wind Farm for all users.

This will provide a long-term benefit to both the local community and visitors to the area.

1.5.8.2 Employment potential

The 2014 report '*The Value of Wind Energy to Ireland*', published by Pöyry, stated that growth of the wind sector in Ireland could support 23,850 jobs (construction and operational phases) by 2030. If Ireland chooses instead to not develop any more wind energy projects, by 2030 the country will be reliant on natural gas for most of its electricity generation, at a cost of €671 million per annum in fuel import costs.

A 2021 MaREI report[60] 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 1.4.1 above.

The Proposed Project will have both long-term and short-term benefits for the local economy including job creation, work opportunities for local businesses and service providers, local authority commercial rate payments and a Community Benefit Fund.

It is estimated that the Proposed Project has the potential to create 100-120 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. This will provide a long-term benefit to both the local community and visitors to the area.

[60] *MaREI 2021 Our Climate Neutral Future: Zero by 2050.* https://www.marei.ie/wp-content/uploads/2021/03/Our-Climate-Neutral-Future-Zero-by-50-Skillnet-Report-March-2021-Final-2.pdf

1.6 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 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 EIA, which will be carried out by ACP, from this EIAR, which accompanies the planning application; please note, this EIAR will inform the EIA to be carried out by ACP. The EIA is the assessment carried out by the competent authority, which includes an examination 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 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) *The interaction between the factors referred to in points (a) to (d)*

This 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 in Article 5 and Annex IV of the revised EIA Directive and Article 94 and Schedule 6 of the Planning and Development Regulations 2001 (as amended) described in Section 1.2 above.

1.7 Structure and Content of the EIAR

1.7.1 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, landscape and visual, cultural heritage and material assets such as traffic and transportation, together with the interaction of the foregoing, schedule of mitigation and monitoring, and risk of major accidents and vulnerability to disasters:

1. *Introduction*
2. *Background to the Proposed Project*
3. *Site Selection and Reasonable Alternatives*
4. *Description of the Proposed Project*
5. *Population and Human Health*
6. *Biodiversity*
7. *Birds*
8. *Land, Soils and Geology*
9. *Water*
10. *Air Quality*
11. *Climate*
12. *Noise and Vibration*

13. *Cultural Heritage*
14. *Landscape and Visual*
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 and Monitoring Measures*

The EIAR also includes a Non-Technical Summary, which is a condensed and easily comprehensible version of the EIAR document. The non-technical summary 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, impacts and mitigation measures presented in the grouped format.

The photomontage booklet pertaining to Chapter 14: Landscape and Visual is included as Volume 2 of this EIAR. Appendices to the chapters listed above are included in Volume 3 of this EIAR.

1.7.2 Description of Likely Significant Effects and Impacts

As stated in the *'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports'* (EPA, May 2022), 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 2022 Guidelines document.

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 guidance documents. 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	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.

Impact Characteristic	Term	Description
Significance	Imperceptible	An effect capable of measurement but without significant consequences.
	Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
	Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
	Moderate	An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends.
	Significant	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
	Very significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
	Profound	An effect which obliterates sensitive characteristics.
Extent and Context	Extent	Describe the size of the area, number of sites and the proportion of a population affected by an effect.
	Context	Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions.
Probability	Likely	Effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
	Unlikely	Effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Duration and Frequency	Momentary	Effects lasting from seconds to minutes.
	Brief	Effects lasting less than a day.
	Temporary	Effects lasting less than a year.
	Short-term	Effects lasting one to seven years.
	Medium-term	Effects lasting seven to fifteen years.
	Long-term	Effects lasting fifteen to sixty years.

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

Each impact is described in terms of its quality, significance, extent & context, probability, duration & frequency, and type, where possible. A 'Do-Nothing' impact is also predicted in respect of each environmental theme in the EIAR. Residual impacts 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.

1.8 Project Team

1.8.1 Project Team Responsibilities

The companies and staff listed in Table 1-3 EIAR Project TeamTable 1-3 EIAR Project Team were responsible for completion of this EIAR. 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 their subject matter. Further details on project team expertise are provided in the Statement of Authority at the beginning of each impact assessment chapter.

Table 1-3 EIAR Project Team

Consultants	Principal Staff Involved in Project	EIAR Input*
MKO Tuam Road, Co. Galway.	Michael Watson Sean Creedon Ellen Costello Colm Ryan Sean McCarthy Dervla O'Dowd John Hynes Catherine Johnson Edel Mulholland Aisling Thomspon Ronan Dunne Mike Ameil Mekell Shikha Gajula Rachel Walsh Sorcha Shanley Jack Workman Dija Mazonaite Alan Roache James Newell Killian Devereux Gabriela Oliveria Aoife Joyce Molly O'Hare Kathryn Sheridan Donnacha Woods Padraig Cregg	Project Managers, Scoping and Consultation, Preparation of Natura Impact Statement and the following Chapters: › 1. Introduction › 2. Background to the Proposed Project › 3. Site Selection and Reasonable Alternatives › 4. Description of the Proposed Project › 5. Population and Human Health › 6. Biodiversity › 7. Ornithology › 10. Air Quality › 11. Climate › 14. Landscape and Visual › 15. Material Assets (non-Traffic) › 16. Major Accidents and Natural Disasters › 17. Interaction of the Foregoing › 18. Schedule of Mitigation Measures
Hydro Environmental Services 22 Lower Main Street, Dungarvan, Co. Waterford.	Michael Gill Conor McGettigan Nitesh Dalal	Flood Risk Assessment, Drainage Design and Preparation of the following Chapters: › 8. Land, Soils and Geology › 9. Water

Consultants	Principal Staff Involved in Project	EIAR Input*
Fehily Timoney & Company The Grainstore, Singletons Lane, Bagenalstown, Co. Carlow.	Ian Higgins Aaron Clarke Doireann Tarrant Alan Whelan	Preparation of Peat Stability Assessment and Peat and Spoil Management Plan
AWN Consulting The Tecpro Building, Clonsgaugh Business & Technology Park Dublin 17.	Miguel Cartuyvels Alistair Maclaurin Mike Simms	Baseline Noise Survey and Preparation of Chapter 12: Noise and Vibration
Tobar Archaeological Services Saleen, Midleton Co. Cork.	Miriam Carroll	Preparation of Chapter 13: Cultural Heritage
Alan Lipscombe Traffic and Transport Consultants Claran, Headford, Co. Galway	Alan Lipscombe	Preparation of Chapter 15: Material Assets
Triturus Environmental Ltd 42 Nordwood Court, Rochestown, Cork T12 ECF3	Ross Macklin Bill Brazier	Preparation of Aquatic Survey Report of the Proposed Project
IAC Archaeology Unit G1, Network Enterprise Park, Kilcoole, Co. Wicklow A63 KT32	Jane Whitaker Enda Lydon	Provision of Archaeological Monitoring during the Third Phase of SI in 2023
Pell Frischmann Ltd 93 George Street Edinbrugh EH2 3ES	Gordon Buchan Timothy Lockett	Provision of the Abnormal Indivisible Load Route Survey

**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.*

1.8.2 Project Team Members

1.8.2.1 MKO

Michael Watson, MA; MIEMA, CEng, PGeo

Michael Watson is Project Director and head of the Environment Team in MKO. Michael has over 25 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).

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.

Ellen Costello M.Sc., B.Sc., PIEMA

Ellen Costello is a Senior Environmental Scientist with MKO with over six years' experience in private consultancy. Ellen holds a BSc (Hons) in Earth Science, and a MSc (Hons) in Climate Change: Integrated Environmental and Social Science Aspects where she focused her studies on renewable energy development in Europe and its implications on environment and society. Ellen's key strengths and expertise are Environmental Protection and Management, Environmental Impact Statements, Project Management, and GIS Mapping and Modelling. Since joining MKO, Ellen has been involved in a range of renewable energy infrastructure projects. In her role as a project manager, Ellen 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. Ellen is a Practitioner Member of the Institute of Environmental Management & Assessment.

Colm Ryan BA

Colm Ryan is the Planning Project Director with MKO with over 16 years of experience in both private practice and local authorities. Colm holds BA (Hons) in Geography & Irish and Masters in Civic Design Town & Regional Planning. Prior to taking up his position with McCarthy Keville O'Sullivan 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 McCarthy

Sean McCarthy, a Project Director with MKO, holds a Bachelor of Science (Hons) in Property Studies from ATU and Master of Science in Urban and Regional Planning from Heriot Watt University, Edinburgh. Sean has over 14 years post qualification experience in consultancy and Local Authority planning. Sean has extensive experience across all development sectors and has been working on renewable energy projects for the past number of years including onshore wind, solar and grid connection development. Sean manages the Planning Renewables Team at MKO, and his experience spans all key areas of planning practice, including development management, forward planning, environmental assessment, and policy interpretation at local, regional, and national levels. Sean has acted on behalf of public and private sector clients and has extensive experience in the preparation, coordination, and review of planning and environmental reports. Sean is competent to provide expert planning opinion and professional judgement in accordance with Irish planning legislation, policy, and best practice

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

Dervla O'Dowd is a Senior Ecologist and Project Manager with MKO with fifteen years of experience in environmental consultancy. 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 the 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 Statements, with emphasis on sections such as Flora & Fauna, and acted as EIS co-ordinator on many of these projects. Dervla has also provided site supervision for infrastructural works within designated conservations areas, in particular within aquatic habitats, and has also been involved in the development of environmental/ecological educational resource materials and major ecological surveys of inland waterways. Currently, Dervla is responsible for coordinating ecological work, in particular ornithological surveys 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.

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

John Hynes is a Senior Ecologist and director of the Ecology team with McCarthy O'Sullivan Ltd. with over 9 years of experience in both private practice and local authorities. John holds a B.SC in Environmental Science and a M.Sc. in Applied Ecology. Prior to taking up his position with MKO in March 2014, John worked as an Ecologist with Ryan Hanley Consulting Ltd. and Galway County Council. John has specialist knowledge in Flora and Fauna field surveys. Geographic Information Systems, data analysis, Appropriate Assessment, Ecological Impact Assessment and Environmental Impact Assessment. John's key strengths and areas of expertise are in project management. GIS and impact assessment. Since joining MKO John has been involved as a Senior Ecologist on a significant range of energy infrastructure, commercial, national roads and private/public development projects. Within MKO John 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 EIS/EIAR Reports. John has project managed a range of strategy and development projects across the Ireland and holds CIEEM membership.

Catherine Johnson B.Sc., LLM

Catherine is a Project Environmental Scientist and Climate Practitioner with MKO with over three years of private consultancy experience and expertise in climate and sustainability matters. Catherine holds a BSc in Earth and Ocean Science and a LLM in Global Environment and Climate Change Law. Prior to joining MKO in 2022, Catherine worked as an Environmental Social Governance (ESG) analyst for Acasta in Edinburgh. Catherine has expertise regarding international climate law and policy, earth processes, ocean science, and sustainability/ESG. Catherine has been involved in a myriad of environmental service offerings at MKO including EIA Screenings and Reports, climate and sustainability related work and renewable energy infrastructure projects.

Aisling Thompson BSc, LLM

Aisling is a graduate Environmental Scientist with MKO with over 1 year of experience in both private practice and local authorities. Aisling holds a BSc in Applied Freshwater and Marine Biology and LLM Marine and Maritime Law. Prior to taking up her position with MKO in June 2025, Aisling worked as an Aquaculture technician with Mount Cook Alpine Salmon in New Zealand and held a previous post as an Assistant Marine Biologist onboard the Celtic Mist. Aisling has specialist knowledge in Environmental and Marine law and policy, Marine and freshwater laboratory skills, and Appropriate Assessments, GIS, MMO, and Legal dispute resolutions. Since joining MKO Aisling has been involved as a Graduate Ecologist within the Forestry department, carrying out AA's and NIS, and has now moved to the Renewables department. Within MKO Aisling plays a role and works as part of a large multi-disciplinary team to produce EIARS.

Edel Mulholland BA

Edel Mulholland is an Environmental Scientist with MKO with over 1 year of experience in both private practice and local authorities. Edel holds BA (Hons) in Environmental Science from the University of Galway. Prior to taking up her position with MKO in September 2024, Edel worked as an Environmental Chemistry Analyst with CLS, Co. Galway, where she assisted with water quality analysis. Edel's key strengths and areas of expertise are in environmental policy, drafting EIAR chapters and QGIS mapping.

Ronan Dunne BSc, MSc

Ronan Dunne is a Project Planner with MKO with over 3 years of experience in private practice. 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. Through his professional and academic experience, Ronan has gained experience in renewable energy planning, Environmental Impact Assessment, strategic and spatial planning, development management, planning appeals, condition compliance, and project management.

Mike Amiel Mekell BA, MSc

Mike Amiel Mekell is a Planner with MKO having joined the company in June 2024. Mike holds a BA (Hons) in Politics, International Relations and Sociology from University College Dubin and an MSc in Planning and Development from Queen's University Belfast. He is a Licentiate of the Royal Town Planning Institute. Prior to taking up his position with MKO, Mike worked as a Graduate Environmental Planner with Roughan and O'Donovan. In this role he prepared Environmental Impact Assessment Screening and Scoping reports, environmental monitoring and management reports and planning reports for projects involving public and active transport infrastructure and sustainable tourism development. Since joining MKO, Mike has been involved in a range of renewable energy projects including onshore wind, solar and grid infrastructure developments. His main responsibilities include preparing planning application documents and reports, preparing inputs for Environmental Impact Assessment Reports and liaising with multidisciplinary project teams,

Shikha Gajula B.Arch

Shikha Gajula is a Graduate Planner with MKO. Shikha holds a Bachelor's degree in Architecture (B.Arch) and is pursuing a Master's in Planning and Development at the University of Galway. Prior to taking up her position with 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, site analysis and barrier-free design. Since joining MKO, Shikha has been involved in a range of projects, including wind farm and grid infrastructure developments. Through her academic background and professional practice, Shikha has gained experience in renewable energy planning, Environmental Impact Assessment Reports, strategic and spatial planning and public participation processes.

Rachel Walsh BSc

Rachel has worked as an Ecologist in MKO since June 2020. She currently holds a role as Senior Ecologist and manages a small team within the company. She holds a First-Class Honours BSc. degree in Environmental Science from NUI Galway. Rachel's key strengths are in botanical identification and habitats assessment, mammal surveying and report writing for the purposes of Ecological Impact Assessment and Appropriate Assessment.

Sorcha Shanley BA, MSc

Sorcha is a Project Ecologist at MKO and holds a BA (Hons) in Zoology and an M.Sc. in Marine Biology. Sorcha has over three years' experience working in ecological consultancy with experience in undertaking habitat and species surveys and working on Ecological Impact Assessment and Appropriate Assessment for a wide range of projects.

Jack Workman BSc, MSc

Jack is the Landscape & Visual Project Director 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.

Dija Mazonaite BSc

Dija Mazonaite is an Environmental Scientist and LVIA Specialist at MKO. Dija has a BSc (Hons) in Geography & Geosystems and was recognised as a University Scholar at the University of Galway. Dija was also a finalist in Undergraduate of the Year for Innovative Sustainable Thinking. Dija's primary role at MKO is producing the LVIA chapter of EIA reports for large infrastructure developments. Since joining MKO, Dija 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. Dija's key strengths include proficiency in GIS tools such as ArcGIS and QGIS, conducting landscape and visual impact assessments and capturing image data through drone surveys and photomontages. Dija is an affiliate member with the Landscape Institute and is also a member with IEMA, with qualifications to fly drones in the A1/A3 subcategories.

Alan Roache BSc, MSc

Alan Roache is a Landscape and Visual Impact Assessment Specialist with MKO. His primary role at MKO is producing the LVIA chapter of EIAR reports. Alan holds an MSc. in Environmental Leadership from University of Galway. Since joining MKO, Alan has worked widely on renewable energy infrastructure, commercial, recreational, and residential projects. Alan is a qualified Unmanned Aerial Vehicle Operator and holds an A1/A3 and A2 drone licence.

James Newell

James Newell is a Graphics Technician with MKO with over 20 years of experience in private practice. James holds a City and Guilds CAD Certificate in 2D and 3D. Prior to taking up his position with MKO 2006, James worked as a pre-press graphic designer with Clodoiri Lurgan Teo. Inverin, Co. Galway. James is a highly creative individual with proficient in numerous graphic & GIS applications. James's key strengths are in 3d photomontage development for the wind & solar energy sector and design production of reports illustrating their visual impacts. Since joining MKO James has contributed to EIS reports in the areas of Wind & Solar farm site drawing design, photomontage, ZTV mapping & shadow flicker analysis. Within MKO James works as part of a shared resources team supporting a variety teams with varied skillsets in addition to managing the KOS's Information technology (I.T.) needs, such as computer & software training &maintenance, virus threats & daily Backups..

Killian Devereux BSc

Killian is currently the Project CAD Technician at MKO he has over 8 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.

Gabriela Oliveria B.Arch

Gabriela Oliveira is a CAD Technician with MKO with over 7 years of experience specializing in the design of residential and commercial spaces, as well as expertise in sustainable and energy-efficient drafting. Gabriela holds a Bachelor of Architecture (B.Arch. Hons) degree in Architecture and Urbanism. Before joining McCarthy Keville O'Sullivan in July 2023, Gabriela held significant roles in the industry, including Architect and CAD Technician positions. She contributed her skills and knowledge at Fergal Bradley & Co. Building Surveyors in Ireland for 4 years and at DAMOUS Ltd. Consulting Engineers in Brazil for 3 years. Gabriela possesses specialized proficiency in architectural design, technical drafting utilizing software such as AutoCAD, SketchUp, and Revit, as well as expertise in measurement surveys and the preparation of Planning Application drawings and documents. Gabriela excels in various areas, with a particular focus on design, drafting, and leading measurement surveys for planning application packages. Since joining MKO, Gabriela has been actively involved in producing drawings for planning applications across a diverse range of projects, including Wind Farms, Solar Farms, residential developments, and commercial buildings.

Within MKO, Gabriela plays a role in the CAD team, dedicated to delivering high-quality technical drawings tailored for planning applications.

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

Aoife Joyce is an Ecologist with MKO Planning and Environmental Consultants with experience in research, consultancy and drilling contractors. Aoife is a graduate of Environmental Science (Hons.) at NUIGalway, complemented by a first-class honours MSc in Agribioscience. Prior to taking up her position with MKO in May, 2019, Aoife worked as an Environmental Scientist with Irish Drilling Ltd. and 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, soil and water sampling, Waste Acceptability Criteria testing, electrofishing, mammal and habitat surveying to GIS, Environmental Impact Assessments (EIAs) and mapping techniques. Since joining MKO, Aoife has been involved in managing bat survey requirements for a variety of wind farm planning applications, as well as commercial, residential and infrastructure projects. This includes scope, roost assessments, deploying static bat detectors and weather stations nationwide, dawn and dusk bat detection surveys, acoustic analysis, mapping, impact assessment, mitigation and report writing. Within MKO, she works as part of a multidisciplinary team to help in the production of ecological reports and assessments. Aoife is a member of Bat Conservation Ireland and CIEEM and holds a current Bat Roost Disturbance licence.

Molly O'Hare BSc

Molly O'Hare is a Project Bat Ecologist with MKO with over 3 years of experience in ecological consultancy. Molly holds a BSc in Ecology and Environmental Biology and an MSc in Marine Biology from University College Cork. Prior to taking up her position with MKO in February 2025, Molly worked as Lead Bat Ecologist for Inis Environmental Consultants Ltd and held a previous post as Research Assistant with African Bat Conservation in Malawi. Molly has specialist experience in bat field survey techniques including mist netting, harp trapping, hand netting, radio tagging and tracking, exclusion works, transect surveys, emergence surveys, re-entry surveys and roost assessments. Molly also has experience carrying out multidisciplinary field surveys such as habitat assessments, general mammal surveys, bird surveys and acting as an ecological clerk of works. Molly's key strengths and areas of expertise are in bat ecology, field survey techniques, project management and survey scope design, bioacoustics analysis and training and education. Since joining MKO Molly has been an

integral part of the bat division of the ecology team. Within MKO she works as part of a multidisciplinary team, Molly is a qualifying member of CIEEM.

Kathryn Sheridan BA, MSc

Kathryn Sheridan is a Project Ornithologist with MKO with over 6 years of experience in ornithological field surveys. Kathryn holds a BA (Hons) Zoology, and a MSc (Hons) in Wildlife Conservation and Management where she focused her studies on breeding hen harrier. Prior to joining MKO in November 2020, Kathryn has worked as a research assistant with UCD, in private consultancy as a sub-consultant with Scott Cawley, and has also worked with BirdWatch Ireland and the NPWS Curlew Conservation Programme. Kathryn's key strengths and expertise are bird identification, GIS, data collation and report writing. In her role as a project ornithologist, Kathryn has worked on wind farm projects, residential developments, county council projects and conservation projects including the preparation of EIAR chapters and seasonal reports.

Donnacha Woods BSc, MSc

Donnacha Woods was a Senior Ornithologist with MKO with over 10 years of experience in both private consultancy and public conservation work. He holds a BSc (Hons) in Zoology, and a MSc (Hons) in Biodiversity and Conservation where he focused his studies on feather morphology and its implications on bird flight. Donnacha's key strengths and expertise are bird surveying and identification, survey design, data analysis and report writing. Prior to joining MKO in August 2020, Donnacha has worked in private consultancy as an ecologist with Mott MacDonald and Enviroguide, and has also worked with BirdWatch Ireland and equivalent conservation organisations in France and Canada. Since joining MKO, Donnacha has been involved in a range of wind energy projects, in addition to projects in housing, education, afforestation, fishing and other sectors. In his role as a project manager, Donnacha works with and co-ordinates a team within MKO's Ornithological department, as well as sub-contractor ornithologists, in the collection and analysis of data for the production of EIAR Bird chapters, Natura Impact Statements and other reports as required. Donnacha is also experienced in impact assessment and in the writing of EIAR Bird Chapters for large-scale wind energy projects.

Padraig Cregg

Padraig is a Principal Ornithologist with MKO and has over 12 years of experience working in environmental consultancies. The natural world has been a lifelong passion for Padraig. He has pursued this passion from boyhood through his academic study and career with MKO. In his role, he acts as technical advisor for the ornithology team, helping to take projects through their entire 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 keeping his colleagues updated on all emerging guidance, legislation, policies, initiatives, industry best practices, emerging trends, and market opportunities.

1.8.2.2 Hydro Environmental Services

Michael Gill

Michael Gill is an Environmental Engineer with over 22 years' environmental consultancy experience in Ireland. Michael has completed numerous hydrological and hydrogeological impact assessments of wind farms in Ireland. He has also managed EIA/EIS 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.

Conor McGettigan

Conor McGettigan (BSc, MSc) is an Environmental Scientist with 4 years' experience in the environmental sector in Ireland. Conor holds an M.Sc. in Applied Environmental Science (2020) and a B.Sc. in Geology (2016) from University College Dublin. Conor has prepared the hydrology and hydrogeology chapter of environmental impact assessment reports for several wind farm developments on peatlands. Conor also routinely prepares hydrological and hydrogeological assessment reports, Water Framework Directive (WFD) compliance assessment reports and flood risk assessments for a variety of development types including wind farms.

Nitesh Dalal

Nitesh Dalal (B.Tech, PG Dip., MSc) is an Environmental Scientist with over 7 years' experience in environmental consultancy and environmental management in India. Nitesh holds a M.Sc. in Environmental Science from University College Dublin (2024), a PG Diploma in Health, Safety and Environment from Annamalai University, India (2021) and B.Tech. in Environmental Engineering (2016) from Guru Gobind Singh Indraprastha University, India (2016).

1.8.2.3 Fehily Timoney & Company

Fehily Timoney and Company (FT) is an Irish engineering, environmental science and planning consultancy with offices in Cork, Dublin and Carlow. The practice was established in 1990 and currently has c.100 members of staff, including engineers, scientists, planners and technical support staff. We deliver projects in Ireland and internationally in our core competency areas of Waste Management, Environment and Energy, Civils Infrastructure, Planning and GIS and Data Management.

Ian Higgins

Ian (BSc Engineering Geology, MSc Geotechnical Engineering, FGS, MIEI, PGeo, EurGeol) is a Technical Director with FT, with over 25 years consultancy experience in Geotechnical Engineering in Ireland. Ian has completed numerous peat stability assessment and geological impact assessment for wind farms. In addition, he has significant experience in the geotechnical design of wind energy projects at construction stage.

Aaron Clarke

Aaron is a Chartered Principal Geologist with FT and has over 20 years' experience in engineering geology and geoscience projects. Aaron has a BSc, MSc, MCSM, PGeo, and EurGeol.

Doireann Tarrant

Doireann Tarrant is a Senior Project Engineer at FT and has a MSc in Geotechnical and Structural Engineering. Doireann has over 2 years' experience in geotechnical engineering.

Alan Whelan

Alan Whelan is a Fehily Timoney Senior Project Engineer. He holds a Bachelor of Engineering in Civil Engineering and is a active member of Engineers Ireland (MIEI). Alan has over 6 years' experience in geotechnical engineering.

1.8.2.4 AWN Consulting Ltd.

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.

Alistair Maclaurin

Alistair Maclaurin (Senior 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.

This chapter of the EIAR has been reviewed by the following staff of AWN Consulting Ltd:

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

1.8.2.5 Tobar Archaeological Services

Tobar Archaeological Services is a Cork-based company entering its ninth year in business. They offer professional nationwide services ranging from pre-planning assessments to archaeological excavation, and cater for clients in state agencies, private and public sectors.

Tobar's Director, Miriam Carroll, is licensed by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs to carry out excavations in Ireland and have carried out work directly for the National Monuments Services of the Department of the Environment, Heritage and Local Government. Tobar Archaeological Services has a proven track record and extensive experience in the wind farm industry from EIAR stage through to construction stage when archaeological monitoring is frequently required.

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.

1.8.2.6 Alan Lipscombe Traffic and Transport Consultants

In January 2007 Alan Lipscombe set up an independent 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 the West of 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 NUI 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 and transport modelling, including for numerous wind farm developments, and is an accomplished analyst who has experience of a wide variety of modelling packages and methods.

1.8.2.7 Triturus

Ross Macklin

Ross Macklin (B.Sc. (Hons) Applied Ecology, HDip GIS, Dip IPM, MCIEEM, IFM) is a principal ecologist and Director at Triturus Environmental Ltd., specialising in freshwater and fisheries ecology. He studied a bachelor's degree in applied Ecology at UCC and later completed a higher diploma in Geographical Information Systems at UCC and a diploma in Integrated Pest Management at UCD. He is currently completing his PhD at UCC in fisheries ecology. Ross has an in-depth knowledge of all freshwater ecosystems and riparian corridors. He has undertaken river habitat, lake habitat, canal habitat and fisheries assessments in professional work for 20 years. His specialist freshwater experience lies in biological and physicochemical water quality analysis, fisheries ecology, riparian habitat assessments, habitat mapping, protected species, mammal surveys, geographical information systems, ecological design and invasive species. Ross has expert experience in identifying and assessing macrophyte plant, aquatic bryophytes, fish and macroinvertebrates from a variety of aquatic habitats. He routinely undertakes fisheries assessments, protected species surveys, invasive species surveys, river hydromorphology surveys, surface water management plans, CEMP, EcIA , EIAR and NIS reporting. He holds full national licences for freshwater pearl mussel (Margaritifera margaritifera), white-clawed crayfish (Austropotamobius pallipes) and amphibians inclusive of an open photography licence for numerous protected species. He has held over 300 section 14 licences for fisheries surveys spanning the breadth of Ireland

Bill Brazier

Bill Brazier (B.Sc. (Hons) Applied Freshwater & Marine Biology, MIFM) is an aquatic, fisheries and mammalian ecologist with over 14 year's professional experience in Ireland. He is a senior ecologist and Associate Director at Triturus Environmental Ltd. and is completing a PhD in fish genetics at UCC. He has extensive experience in a wide range of ecological and environmental projects including EIAR, EcIA and AA/NIS reporting, as well as the areas of renewable energy developments, flood relief schemes, road schemes, invasive species management blueways/greenways, biodiversity projects and non-volant mammal monitoring. Highly competent in GIS, he specialises in aquatic ecology and freshwater fish, inclusive of fisheries assessments, macrophytes, water quality, hydromorphology, riparian habitats, otter, freshwater pearl mussel, white-clawed crayfish and amphibians, holding full national licences for all of these species. Bill is one of Ireland's most experienced fisheries scientists having held over 250 section 14 authorisation licences for fisheries related work in freshwater and transitional habitats.

1.8.2.8 IAC Archaeology

Jane Whitaker

Jane is responsible for directing archaeological excavations and investigations, managing teams of archaeologists and site logistics; with significant expertise in wetland environments.

Jane holds Bachelor's and Master's degrees in Archaeology from University College Dublin and is a specialist in wetland environments. She is a Member of the Institute of Archaeologists of Ireland and previously served on their Board of Directors.

With over 32 years' experience in her field Jane has directed licenced archaeological investigations at testing, excavation and monitoring phases, associated with the planning process. Jane's area of expertise relates to the survey, assessment and recording carried out as part of mitigation programs on Ireland's peatlands. Her work as part of the Irish Archaeological Wetland Unit involved the excavation of the bog body at Tumbeagh; and she has over 20 years' experience on a variety of Bord na Móna mitigation projects. As well as presenting many lectures on the archaeology of peatlands at both national and international conferences she has written articles on this work and published two monographs detailing the results of 60 excavations in Bord na Móna Peatlands. Jane recently managed the large-scale excavation of a medieval settlement site in advance of a residential development in North Dublin and carried out monitoring of the construction phase of a substantial data centre.

Enda Lydon

Enda is an archaeologist and lead archaeological surveyor with Irish Archaeological Consultancy (IAC) with over 23 years of experience. This experience includes fifteen seasons of archaeological excavations and field surveys in Irish raised bogs. Enda holds an MA in Archaeology and Heritage. For this, Enda's MA thesis focused on the application of new materialism/assemblage theory to the prehistoric trackways of Cloonshannagh bog, Co. Roscommon. Enda has been involved in peatland projects such as renewable energy infrastructure projects and the Peatlands Climate Action Scheme

1.8.2.9 Pell Frischmann

The TDR route was identified and surveyed by Pell Frischmann Consulting Engineers. Pell Frischmann is a multidisciplinary and international consultant engineering company working across infrastructure, buildings, and regeneration. The commission was led by Gordon Buchan BEng (Hons), MSc, FCIHT, CMCILT, Divisional Director for Pell Frischmann and Timothy Lockett BSc, MCILT. Gordon has over 15 years' experience in undertaking abnormal load assessments across the UK, Republic of

Ireland and northern Europe and has worked on over 500 wind farm sites. Timothy has over 10 years' experience and has worked on over 300 wind farm sites in the UK and Ireland.

1.9 Difficulties Encountered

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

1.10 Viewing and Purchasing the EIAR

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

- ACP: http://www.pleanala.ie/

This EIAR and all associated documentation will also be available for viewing at the offices of ACP and Offaly 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

- Offaly County Council,
- Áras an Chontae
- Charleville Road
- Tullamore
- Co. Offaly

- Ferbane Library
- Lower Main Street
- Ferbane
- Co. Offaly

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 the Lemanaghan Wind Farm dedicated SID website: https://www.lemanaghanwindfarmplanning.ie.