Planning and Environmental Consultants

Environmental Impact Assessment Report (EIAR)

Cunlaghfadda Green Energy Project, Co. Mayo

Chapter 1 - Introduction

1. INTRODUCTION

1.1 Introduction

This Environmental Impact Assessment Report (EIAR) has been prepared by MKO on behalf of Cunlaghfadda Green Energy Ltd., hereafter referred to as the Applicant, who intends to apply to Mayo County Council (MCC) for planning permission to construct a renewable energy development that will comprise 7 no. wind turbines and all associated infrastructure in the townlands of Cunlaghfadda, Cloonbaul, Harefield, Knockaunakill and Knockroe under the Provisions of Section 34 of the Planning and Development Act 2000, as amended ('the Planning Act').

A separate Strategic Infrastructure Development (SID) application will be submitted to An Coimisiún Pleanála (ACP) under the provisions of Section 182A of the Planning Act for the connection of the proposed renewable energy development to the national electricity grid. This application will comprise an onsite 110kV substation, underground electrical cabling between the substation and the 110kV Castlebar to Cloon overhead line and all associated infrastructure.

This EIAR accompanies both applications and assesses both the Proposed Wind Farm and Proposed Grid Connection (refer to Section 1.1.1 below).

1.1.1 References to Proposed Project

The Proposed Project, which will be known as the 'Cunlaghfadda Green Energy Project' is being brought forward in response to local, national, regional and European policy regarding Ireland's transition to a climate neutral economy, associated climate change policy objectives and to reduce Ireland's dependence on imported fossil fuels for the production of electricity.

For the purposes of this EIAR:

- Where the 'Proposed Wind Farm' is referred to, this refers to turbines and associated foundations and hardstanding areas, including access tracks, underground cabling, permanent meteorological mast, temporary construction compound, peat and spoil management, biodiversity enhancement, tree felling, site drainage, operational stage signage, turbine delivery route and junction accommodation works and all ancillary works and apparatus. The Proposed Wind Farm is described in detail in Chapter 4, Section 4.4.1 of this EIAR.
- Where the 'Proposed Grid Connection' is referred to, this refers to the proposed 110kV onsite substation, underground 110kV cabling and end masts connecting the proposed 110kV substation to the 110kV Castlebar to Cloon overhead line, access tracks and all ancillary works and apparatus. The Proposed Grid Connection Route is described in detail in Chapter 4, Section 4.4.2 of this EIAR.
- Where the 'Proposed Project' is referred to, this encompasses the entirety of the project (Proposed Wind Farm and Proposed Grid Connection) 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 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 1-2 of the EIAR and encompasses an area of approximately 165 hectares.

This EIAR, along with the Natura Impact Statement (NIS), will accompany the applications for planning permission for the Proposed Project. Both the EIAR and NIS contain the information necessary for the Planning Authorities to complete the Appropriate Assessment and Environmental Impact Assessment (EIA) as required for the planning permission application.

As noted in Section 1.1 above, elements of the Proposed Wind Farm are subject of a planning application made to MCC under Section 34 of the Planning and Development Act 2000, as amended, while elements of the Proposed Grid Connection are subject to a separate application to ACP under Section 182A of the same Act. For clarity, in this EIAR, all elements of the Proposed Project will be assessed, and the Proposed Project is assessed cumulatively and in combination with other plans and projects to aid the Planning Authorities in carrying out an EIA.

In addition, the Proposed Project is also assessed within the NIS, that accompanies both applications, to assist the Planning Authorities in undertaking an Appropriate Assessment (AA).

The EIAR Site Boundary identifies the primary EIAR study area for the Proposed Project and has been defined in consideration of the land ownership boundaries, natural features, such as field patterns, land-use, habitats, and man-made features, such as roads and national grid infrastructure. The EIAR Site Boundary encompasses an area of approximately 165 hectares (ha). 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 permanent footprint of the Proposed Project measures approximately 5.5 ha, which represents approximately 3% of the Site. The Proposed Project is described in detail in Chapter 4 of this EIAR.

The planning application Red Line Boundary consists of the Proposed Development. For the purposes of this planning application, this occupies a smaller area within the EIAR Site Boundary, with this being approximately 9.2 ha.

Please see Figure 1-2 which illustrates the Red Line Boundary, EIAR Site Boundary and the landholding boundary.

1.1.2 Proposed Site Location

The Site is located within a rural setting in south Co. Mayo, approximately 5.3 kilometres (km) to the northwest of the town of Claremorris. The town of Castlebar is located approximately 16km north-west of the Site. The Site comprises a mix of agri-pastoral land, bog and private forestry. The N60 National Road runs north-south approximately 2km to the east. The R331 Regional Road runs northeast-southwest, approximately 5km from the southern boundary of the site. Existing access is via the L1505 local road to the south and the L5536 local road to the north. The site location context is shown in Figure 1-1. The Site is shown overlain on aerial imagery in Figure 1-2. The Site falls within the townlands of Cunlaghfadda, Cloonbaul, Harefield. Knockaunakill and Knockroe.

It is intended to connect the Proposed Wind Farm to the national grid via a new onsite 'loop-in' 110kV substation connected to the nearby Castlebar to Cloon 110kV overhead transmission line via approximately 982 metres (m) of underground cabling route which will run in a north-eastward direction from the proposed onsite 110kV substation through agricultural land to the existing overhead line. The existing overhead line will be broken by 2 no. end masts (lattice type towers) to facilitate the connection to the Proposed Wind Farm. Please see Figure 4-3 for detail.

Current land-use on the Proposed Wind Farm comprises coniferous forestry, cutover peat and agriculture. Current land-use along the Proposed Grid Connection Route comprises of agricultural pastures and coniferous forestry. Land-use in the wider landscape of the site comprises a mix of agriculture, peat cutting and low density residential.

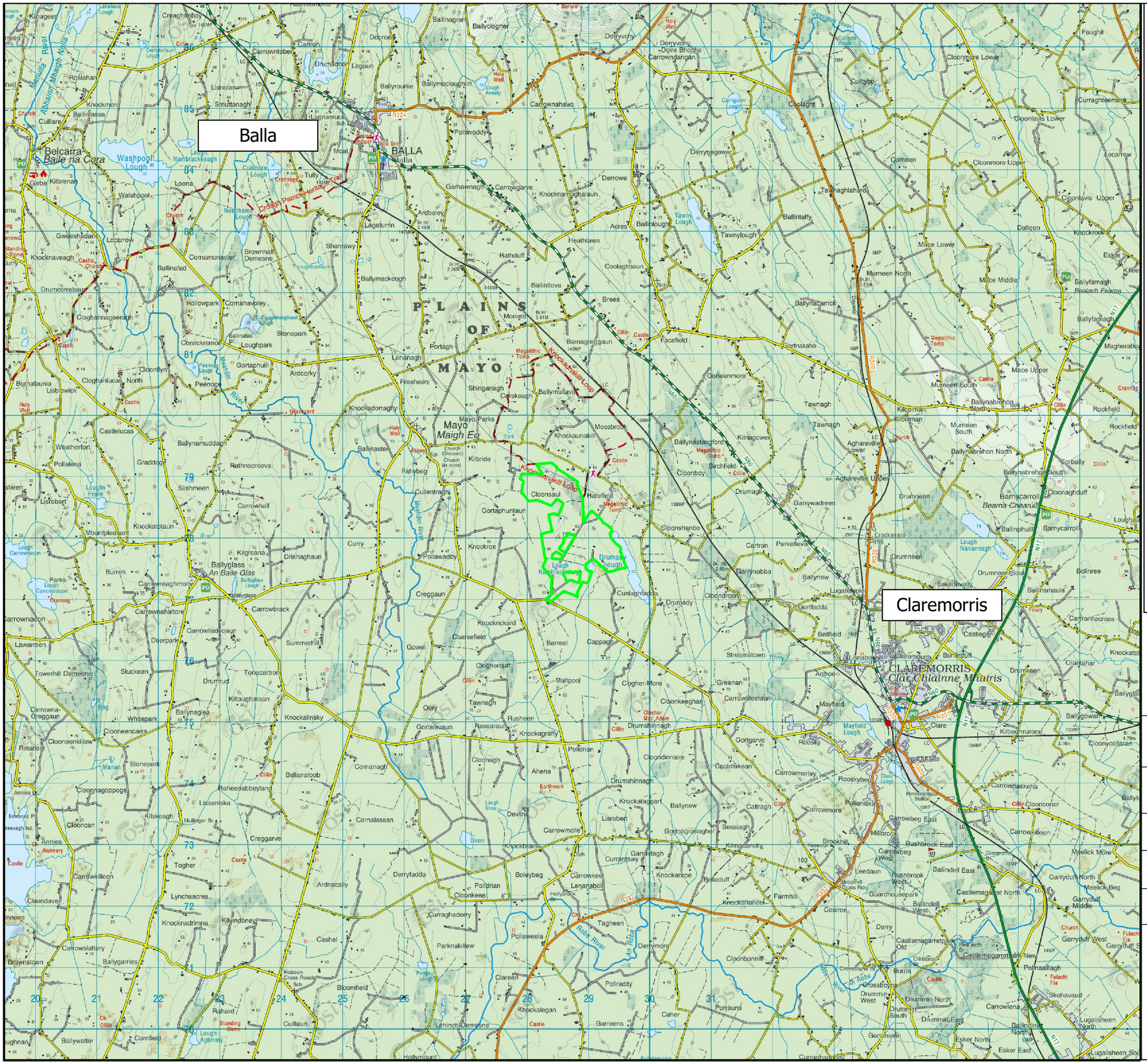
The Proposed Wind Farm is located within an area designated in the Mayo County Development Plan, 2022-2028 as a 'Preferred Tier 1 Cluster' for wind energy development.

Minor accommodation works are required as part of the turbine delivery route; these include temporary widening along the existing public road corridor have which been assessed as part of this

EIAR. These works are located along the L55512 in the townland of Claremount and along the L1506, L1505 and L5531 in the townland of Coolmakean, Greenan and Carrowsteelaun.

Table 1-1 Townlands related to the Proposed Project

Project Component		Townlands
Proposed Project	Proposed Wind Farm	Cunlaghfadda, Cloonbaul, Knockaunakill, Harefield,Knockroe, Coolmakean, Greenan, Carrowsteelaun and Claremount
	Proposed Grid Connection	Cloonbaul



Map Legend

EIAR Site Boundary

Drawing Title	Site Location
Project Title	Proposed Cunlaghfadda Green Energy Project
Drawn By: NS	Checked By: RK
Project No.: 220825	Drawing No.: Figure 1-1
Scale: 1:60,000	Date: 2025-11-27

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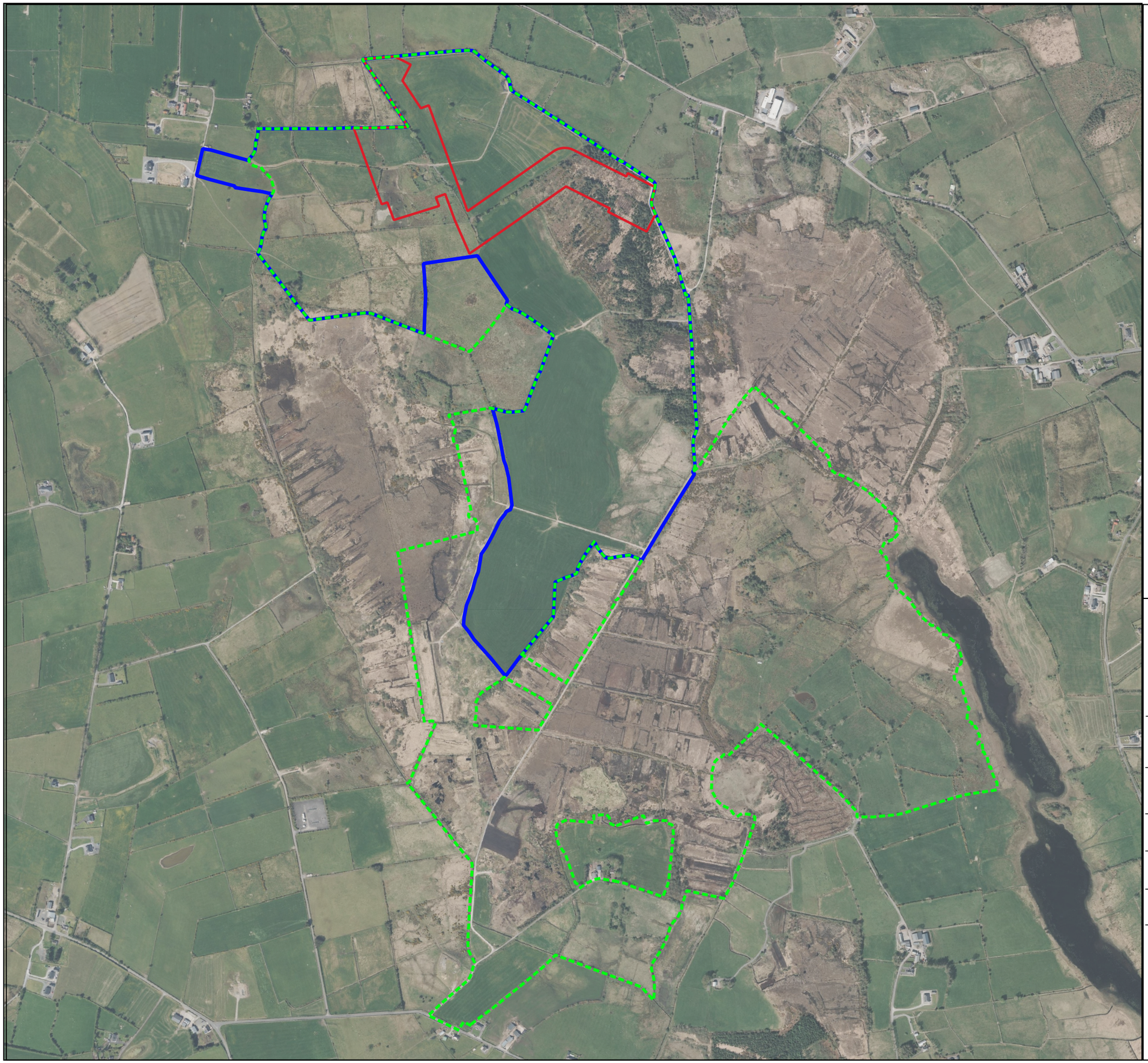

Map Legend

- Red Line Boundary
- EIAR Site Boundary
- Landowner Boundary

Drawing Title

Proposed Project Boundaries

Project Title

Proposed Cunlaghfadda Green Energy Project

Drawn By	Checked By
JA	NS
Project No. 220825	Drawing No. Figure 1-2
Scale 1:8,500	Date 2026-06-16

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1.2 Legislative Context of Environmental Impact Assessment

The consolidated European Union Directive 2011/92/EU as amended by 2014/52/EU on the assessment of the effects of certain public and private projects on the environment (the 'EIA Directive'), has been transposed into Irish planning legislation by the Planning and Development Act 2000 as amended and the Planning and Development Regulations 2001 as amended.

This EIAR complies with the EIA Directive and its transposing legislation.

The Environmental Impact Assessment (EIA) will be undertaken by Mayo County Council (MCC), as the competent authority.

Article 5 of the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU provides that where an EIA is required, the developer shall prepare and submit an environmental impact assessment report (EIAR). The information to be provided by the developer shall include at least:

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, Article 94 of the Planning and Development Regulations 2001 (as amended) sets out the information to be contained in an EIAR, with which this EIAR complies.

In August 2025, some of the provisions of RED III were transposed into national law through the European Union (Planning and Development) (Renewable Energy) Regulations 2025 (S.I. No. 274 of 2025). This legislation was adopted for the purpose of giving effect to Articles 15e(5), 16, 16b, 16c(2), 16d, 16e and 16f of the RED III Directive.

The legislation introduces new decision timelines based on a "completeness check" (ss.34E, 37JB, 295B): 52 weeks for new wind farms, 30 weeks for repowering projects, and one to two years for IROPI cases (two years for projects over 150 kW, one year for projects under 150 kW or repowering). Importantly, renewable energy developments, including related grid and storage infrastructure, are now presumed to be in the **overriding public interest**.

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

Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended, identifies classes and scales of development that require Environmental Impact Assessment (EIA). The relevant class of development in this case relates to "*installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts*", as per Item

3(i) of the Schedule. The Proposed Project exceeds 5 Megawatts in scale and proposes more than 5 turbines and therefore is subject to mandatory EIA.

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

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

1.2.1 EIAR Guidance

The Environmental Protection Agency (EPA) published its *'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' (EPA, 2022)* in May 2022, which is intended to guide practitioners preparing an EIAR. This EIAR has been prepared in line with the guidance provided within this document..

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 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) (hereafter referred to as the 'Guidelines (DoEHLG, 2006)') have been taken into account during the preparation of this EIAR. This EIAR complies with the guidance provided in the Guidelines (DoEHLG 2006).

The Guidelines (DoEHLG, 2006) 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 Guidelines (DoHPLG 2019)'). A consultation process in relation to the Draft Guidelines (DoHPLG, 2019) closed on 19th February 2020. The proposed changes presented in the Draft Guidelines (DoHPLG, 2019) give certain focus on the setback distance from residential properties (four times the proposed maximum tip height), along with shadow flicker and noise requirements relative to sensitive receptors.

At time of writing, the Draft Guidelines (DoHPLG, 2019) have not yet been adopted, and the relevant guidelines for the purposes of Section 28 of the Planning and Development Act 2000, as amended, remain to be the Guidelines (DoEHLG, 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[1], it is possible that the Draft Guidelines (DoHPLG, 2019) may be adopted during the consideration period for the current planning application. Should the Draft Guidelines (DoHPLG, 2019) be adopted in advance of a planning decision being made on this application, the Proposed Project will be capable of 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 has been designed to achieve the recommended distance of 4 times turbine tip height from proposed turbines to third-party sensitive receptors, which has become a recognised standard for the purposes of protecting residential visual amenity, as currently outlined in the Draft Guidelines (DoHPLG, 2019).

1.3 The Applicant

The applicant for the Proposed Project, Cunlaghfadda Green Energy Ltd., is a subsidiary of Greensource Sustainable Developments Limited (Greensource Ltd).

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

1.4 Brief Description of the Proposed Project

The Proposed Project will be subject to a number of consenting processes, with development relating to the Proposed Grid Connection being subject to a planning application under Section 182A of the Planning and Development Act, 2000, as amended. Development relating to the Proposed Wind Farm will be subject to a separate planning application under Section 34 of the Planning and Development Act, 2000, as amended. The planning application for elements of the Proposed Grid Connection will be submitted to An Coimisiún Pleanála (ACP), while the planning application for elements of the Proposed Wind Farm will be submitted to Mayo County Council. The EIAR assesses both the Proposed Wind Farm and the Proposed Grid Connection.

The development description for the Proposed Wind Farm planning application to Mayo County Council will appear in the public notices as follows:

The development will consist of the provision of the following:

i. 7 no. wind turbines with a top of foundation to blade tip height of 160 metres; a rotor blade diameter of 136 metres; and hub height of 92 metres,1 no. meteorological mast with a height of 92 metres and subsequent decommissioning of the wind turbines and meteorological mast following a thirty five-year operational life from the date of full commissioning of the wind turbines;
ii. Turbine and meteorological mast foundations and associated temporary and permanent hard-standing areas;
iii. All associated underground electrical and communications cabling and subsequent decommissioning of all underground cabling within the site connecting the turbines to a proposed 110kV substation following a thirty five-year operational life from the date of full commissioning of the wind turbines;

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

iv. 1 no. temporary construction compound;
v. Upgrade and widening of existing internal tracks and provision of new permanent and temporary site access tracks and all associated site drainage;
vi. Upgrade and temporary road widening works along the L15053 and provision of 1 no. passing bay;
vii. 1 no. new temporary site entrance off the L1505 in the townland of Knockroe to accommodate the delivery of abnormal loads and construction phase traffic;
viii. 1 no. new permanent site entrance in the townlands of Cunlaghfadda and Cloonbaul;
ix. 1 no. borrow pit;
x. 10 no. peat and spoil management areas;
xi. 2 no. temporary security cabins;
xii. Tree felling and vegetation removal;
xiii. Biodiversity enhancement areas;
xiv. Site drainage;
xv. Site fencing, gates and signage; and
xvi. All related site works above and below ground and all ancillary development.

The development description for the Proposed Grid Connection planning application to ACP will appear in the public notices as follows:

The development will consist of the provision of the following:

i. 1 no. 110kV electrical substation compound consisting of 2 no. single storey control buildings with welfare facilities, all associated electrical plant and apparatus, underground cabling, lighting columns, lightning masts, fencing and access gates, signage, 2 no. wastewater holding tanks and 2 no. rainwater harvesting tanks;
ii. The installation of c. 982 metres of 110kV underground cabling, 2 no. new end masts with a height of c. 16 metres and associated hard-standing areas to facilitate the new 'loop-in/loop-out' connection into the existing Castlebar to Cloon 110kV overhead line;
iii. A telecommunications tower with a height of 36 metres and associated foundation, hard-standing area, fencing and access gate;
iv. A temporary construction compound;
v. Provision of new permanent and temporary construction site access tracks;
vi. Tree felling and vegetation removal;
vii. Site drainage; and
viii. All related site works above and below ground and all ancillary development.

The applicant is seeking a ten-year planning permission for 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 4.5MW. Therefore, on this basis, the proposed 7 no. wind turbines would have a combined generating capacity of 31.5MW. The actual turbine procured as part of a competitive tender process may have a power output that is marginally lower or greater than the 4.5MW 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 3.2.6 in Chapter 3: Consideration of Reasonable Alternatives, the layout of the Proposed Project has been led by consideration of constraints and facilitators, thereby avoiding the environmentally sensitive parts of the Site. The access track layout for the Proposed Project makes use of the existing onsite tracks where possible, with approximately 1km of existing tracks requiring

upgrading and approximately 3.7km of new access tracks to be constructed, all of which will form part of the permanent access track footprint for the Proposed Project.

Temporary construction tracks will be constructed within the Site to facilitate the delivery of abnormal loads and concrete deliveries for the turbine foundations. The temporary access track footprint will be 615m in length and will be reinstated post completion of the construction phase. All proposed temporary and permanent site access tracks were subject to autotrack assessments to identify the turning area required, as described in Chapter 15, Section 15.1 of the Traffic and Transport Assessment.

Temporary hardstand areas i.e., crane pads and blade fingers and temporary widening areas will be used during the construction phase. Following the turbine commissioning, all temporary hardstand and widening areas, 1.4ha in total, will be reinstated.

It is proposed to upgrade the existing L15053 public road to facilitate turbine delivery and construction traffic to the Site, with approximately 772m of upgrade works being proposed.

1.5 Need for the Proposed Wind Farm

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 National Climate Action Plan 2025 (CAP25)[2] 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*'[3] 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.

Despite the progress in 2024 noted above, Ireland continues to face highly complex climate challenges, as detailed in a more recent EPA publication from July 2024 titled '*Ireland's State of the Environment Report 2024*'[4]. This report states that *"Ireland has set a national objective to transition by 2050 to a climate-resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy. Achieving this multifaceted objective will be the most complex and interconnected societal challenge for the next*

[2] *Department of Environment, Climate and Communications (2025) Climate Action Plan 2025*
[3] *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 >
[4] https://www.epa.ie/publications/monitoring–assessment/assessment/state-of-the-environment/EPA-SOE-Report-2024-BOOK-LOWRES-FINALfor-WEB.pdf

25 years, and each step towards its achievement will present opportunities and challenges. Efficiencies will not get us there. Incrementalism will not get us there. Collectively we must shift our society to a sustainable trajectory." The report further notes that the overall current assessment for climate in Ireland is 'poor' and *"largely not on track to meet policy objectives and targets"* and urges the full implementation of actions set out in the CAP25, in addition to various other actions, for Ireland to have any chance of meeting its 2030 and 2050 climate targets. According to a SEAI report[5] published in November 2024, there are significant projected gaps to all legally binding targets in Ireland, including national carbon budgets and sectoral emissions ceilings, and EU obligations on renewable energy, energy efficiency and greenhouse gas emissions. The report highlights the risks faced over the delayed achievement of the majority of CAP targets, including renewable electricity, and that "*actions to address these risks are critically important*".

The critical need for renewable energy is underscored by European legislation. RED III[6] 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 1.5.4.1 RED III was partially transposed into Irish Law in August 2025 by the European Union (Planning and Development) (Renewable Energy) Regulations 2025 (S.I. No. 274/2025).

As such, the Proposed Project is critical to helping Ireland address these challenges as well as addressing the country's over-dependence on imported fossil fuels.

The need for the Proposed Project is driven by the following factors:

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

These factors are addressed in further detail below. Section 2.2 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 2.2 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.[7] The report provides a summary on the state of the climate indicators in 2024

[5] https://www.seai.ie/sites/default/files/publications/National-Energy-Projections-Report-2024.pdf
[6] *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.*
[7] *World Meteorological Organisation (2025) State of the Global Climate 2024* <https://library.wmo.int/records/item/69455-state-of-the-global-climate-2024>

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 they continued to rise in 2024.
- January – September 2024 global mean surface air temperature was 1.54 ± 0.13°C above the pre-industrial average.
- 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).[8] This growth represents the highest rate observed in the past two decades, signalling a significant momentum toward achieving the clean energy goal set at the United Nations Framework Convention on Climate Change (UNFCCC) 28th Conference of the Parties (COP28) meeting in 2023, and reiterated at the 29th Conference of the Parties (COP29) in Azerbaijan in 2024, to triple renewable energy capacity globally to 11,000 GW by 2030. Considering existing policies and market conditions, the International Energy Agency (IEA) predicts that there will be approximately 5,500GW of new renewable capacity becoming operational by 2030. This implies that global renewable capacity additions will continue to increase every year, reaching almost 940GW annually by 2030 – 70% more than the record level achieved last year. Solar PV and wind together account for 95% of all renewable capacity growth through the end of this decade due to their growing economic attractiveness in almost all countries.

The recent joint publication of WMO and International Renewable Energy Agency on Climate-driven Global Renewable Energy Potential Resources and Energy Demand in 2023[9] 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

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

[8] *IEA (2024), Renewables 2023, IEA, Paris <https://www.iea.org/reports/renewables-2023>*
[9] *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>*

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 government approved the Climate Action and Low Carbon Development (Amendment) Bill which provide plans to facilitate the 'transition to a climate resilient and climate neutral economy by the end of year 2050'[10] 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 to give statutory effect to ending the issuing of new 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 also outlines the obligations of relevant bodies, such as ACP and/or the local authority, in assisting the country reach these targets. Section 15 of the Act states as follows:

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

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

The obligations set out by the Climate Action and Low Carbon Development (Amendment) Act 2021 were interpreted by the Supreme Court in the *Coolglass Wind Farm limited v. An Bord Pleanála* judgment delivered on the 4th of February 2026. The Supreme Court held that when considering whether a decision to grant planning permission would be consistent with the climate policies and objectives listed in section 15, a planning authority is entitled to presume that compliance with the development plan, which itself has been prepared in accordance with section 15, will be compliant with those climate policies and objectives. As demonstrated in the planning statement accompanying this application, the Proposed Project complies with the Mayo County Development Plan 2022-2028 and the objectives therein. Accordingly, it is submitted that granting permission for the proposed development is consistent with the section 15 climate policies and objectives.

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

In February 2022, the International Panel on Climate Change (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 CO2 and other greenhouse gas emissions occur in the coming decades. The report identifies four key risks for Europe, with most becoming more severe at 2 °C global warming levels (GWL) compared with 1.5 °C GWL. From 3°C GWL, severe risks remain for many sectors in Europe. The four key risks identified are:

- 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 WGIII contribution to the IPCC's Fifth Assessment Report (AR5), the WGI and WGII contributions to AR6 and the three Special Reports[11] 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*'[12], and is the final product of the AR6 of the IPCC. It summarizes 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 NDCs announced prior to COP26, Parties to the Paris Agreement have two years to submit updated NDCs for the period up to 2035, ambition will need to be ratchetted up in order to limit warming to 1.5°C.

In May 2025, the EPA[13] reported, for the 2023 year, that the energy sector contributed to 14.3% of Ireland's total emissions. The latest EPA projections show that currently implemented policies and measures (WEM) will result in Ireland achieving a total greenhouse gas emission reduction of 9.5% on 2005 levels by 2030, significantly short of Irelands 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.[14] If policies and measures in the higher ambition (WAM) scenario are implemented, EPA projections show that Ireland can achieve a reduction of 21.7% by 2030, still short of the 42% reduction target and also lower than the 25% reduction projected in last year's estimates. The EPA projections show that agriculture and transport emissions form the majority of ESR emissions. Decarbonisation of power generation is a key measure, not only in the energy sector, but for

[11] *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)*
[12] *IPCC Sixth Assessment Synthesis Report, Intergovernmental Panel on Climate Change AR6 Report: Climate Change 2023*
[13] *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>
[14] *Irelands Greenhouse Gas Emission Projections 2022-2024 (June 2023)* <https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/EPA-GHG-Projections-2022-2040_Finalv2.pdf>

other energy intensive sectors, such as transport and agriculture, whose activities result in high levels of greenhouse gas emissions.

In July 2025 the EPA published '*Ireland's Provisional Greenhouse Gas Emissions 1990-2024*'[15] 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.

The '*National Energy Projections 2025*'[16], 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. These 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.

CAP25[17] was published on the 15th of April 2025 by the Department of the Environment, Climate and Communications (DECC). Following on from Climate Action Plans 2019, 2021, 2023, and 2024, CAP25 sets out the roadmap to deliver on Ireland's climate ambition. It aligns with the legally binding economy-wide carbon budgets and sectoral ceilings that were agreed by Government in July 2022 following the Climate Action and Low Carbon Development (Amendment) Act 2021, which commits Ireland to a legally binding target of net-zero greenhouse gas emissions no later than 2050, and the reduction of 51% by 2030 mentioned above. CAP25 sets out an ambitious course of action over the coming years to address the impacts which climate may have on Ireland's environment, society, economic and natural resources. CAP25 clearly recognises that Ireland must significantly step up its commitments to tackle climate disruption. CAP25 reidentifies the need to increase the share of electricity demand generated from renewable sources by to up to 80% where achievable and cost effective, without compromising security of electricity supply and a need for 9GW of onshore wind generation. In 2023, Ireland had 4.74GW of installed wind capacity, up 4.5% on the previous year; the Sustainable Energy Authority of Ireland (SEAI) provisional estimate for installed wind capacity in 2024 is 4.85GW, based on EirGrid data to the end of August, and ESB-Networks data to the end of September 2024.[18] As of January 2025, there were 6.3GW of wind energy capacity installed on the island of Ireland; Of this, 5.1GW was installed in the Republic of Ireland.[19]

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[15] *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 >

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

[17] *Government of Ireland (2025) Climate Action Plan 2025* <https://www.gov.ie/en/department-of-the-environment-climate-and-communications/publications/climate-action-plan-2025/>

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

[19] *EirGrid,* https://www.eirgrid.ie/grid/system-and-renewable-data-reports

CAP25 presents clear and unequivocal support for the provision of additional renewable energy generation and presents yet further policy support for increased wind energy.

CAP25 sets out the following targets for electricity generation and transmission:

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

It is estimated that the Proposed Project will have a generating capacity of 31.5MW (Based on a 4.5MW turbine model). On this basis, the Proposed Project will result in the net displacement of approximately 19,731 tonnes of carbon dioxide (CO_2) per annum, including accounting for back-up generation. The carbon offsets resulting from the Proposed Project are described in detail in Chapter 11 of this EIAR.

1.5.2 Energy Security

At a national level, Ireland currently has one of the highest external dependencies on imported sources. In August 2025 the SEAI published '*Irelands Energy Supply and Security of Supply in 2024'* [20], which identifies that in 2024, Ireland's national primary energy requirement remained heavily fossil dependent, with 81.4% of energy requirement satisfied by fossil fuels, reducing by only 1.4% from 2023 figures. Conversely, 2024 saw record high use of renewable energy in Ireland, with 14.5% of the national energy requirement satisfied by renewables, an increase of 0.5% from 2023. Overall, Ireland's total primary energy requirement in 2024 was 168.0 TWh, a 4.19 TWh (2.6%) increase from 2023 figures, with energy requirements predicted to continue to increase in the coming years. In November 2023, the Department of the Environment, Climate and Communications (DECC) released '*Energy Security in Ireland to 2030'* [21], which states that "*Ireland's future energy will be secure by moving from an oil-, peat-, coal, and gas-based energy system to an electricity-led system, maximising our renewable energy potential flexibility and being integrated in Europe's energy system*s." 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.[22]

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

[20] *SEAI (August 2025) Irelands Energy Supply and Security of Supply in 2024* < https://www.seai.ie/data-and-insights/seai-statistics/key-publications/energy-supply-security >
[21] *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>
[22] *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>

In December 2025 the SEAI published its '*Energy in Ireland 2024 Report*'[23], 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 (47.6. 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.[24] These are the lowest carbon intensity values ever reached in Ireland. 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 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.*'

Ireland continues to be hugely energy import-dependent leaving it exposed to large energy price fluctuations 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 Irelands 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"*[25].

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%. 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[26] notes that "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".*

[23] *Sustainable Energy Authority Ireland (2025) Energy in Ireland – 2025 Report* <https://www.seai.ie/sites/default/files/publications/Energy-in-Ireland-2025.pdf>
[24] https://www.seai.ie/data-and-insights/seai-statistics/conversion-factors/
[25] *Dr Eimear Cotter, Head of Low Carbon Technologies, SEAI - "Energy Security in Ireland 2015"*
[26] *Ireland's Transition to a Low Carbon Energy Future 2015-2030 (Department of Communications, Energy & Natural Resources, 2015)*

1.5.2.1 REPowerEU

In a Communication from the European Parliament on Joint European Action for more affordable, secure and sustainable energy[27], the European Commission proposed an outline of a plan to make Europe independent from Russian fossil fuels well before 2030 in light of Russia's invasion of Ukraine. Commission President Ursula von der Leyen stated:

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

In May 2022, the EU published the REPowerEU Plan[28] in light of Russia's invasion of Ukraine in February 2022. The core purpose of the plan, in addition to accelerating the EU's transition from the use of fossil fuel to renewable energy sources, is to end the dependence on Russian fossil fuels.

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

1.5.3 Competitiveness of Wind Energy

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

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

1.5.4 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.

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[27] *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
[28] https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

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)[29] 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),[30] which continues to promote the growth of renewable energy out to 2030. Ireland's mandatory national target for 2020 was to supply 16% of its overall energy needs from renewable sources. This target covered energy in the form of electricity (RES-E), heat (RES-H) and transport fuels (RES-T). Ireland fell just short of this target with total GFC reaching 13.5%. 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. As 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 (2025), which will ensure that renewable electricity continues to form the backbone of Irish renewable energy use for the coming decade and beyond.

Given the need to ratchet up the EUs clean energy transition, RED was revised in 2023, and the amending Directive EU/2023/2413 (REDIII)[31] entered into force on 20 November 2023 and transposed into Irish law in August 2025. REDIII amended the EU-wide overall 2030 RES target from 32% to at least 42.5%, with an ambition to reach 45% by 2030[32]. Article 3(4a) of RED III requires Member States to establish a framework to enable the deployment of renewable energy to a level consistent with its national contribution to the Union's target and at a pace that is consistent with the indicative trajectories in Climate Action Regulation 2018/1999. Ireland's statutory national climate objective and 2030 targets are aligned with Ireland's obligations under the Paris Agreement and with the European Union's objective to reduce GHG 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 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 GHG emissions by at

[29] *Directive 2009/28/EC on the promotion of the use of energy from renewable sources. Available from: https://eur-lex.europa.eu/legalcontent/EN/ALL/?uri=celex%3A32009L0028*
[30] *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*
[31] *Directive (EU) 2023/2413 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. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202302413*
[32] *European Commission 2023 Renewable Energy Directive < https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en>*

least 55% by 2030, compared to 1990 levels and to achieve climate neutrality in the European Union by 2050.

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

CAP25 states that in order to meet the required level of emissions reduction by 2030 and the 80% renewable electricity generation target by 2030, the installed generation capacity of onshore wind will need to reach 9GW and at least 5GW of offshore wind. As stated above, in 2023, Ireland had 4.74GW of installed wind capacity, up 4.5% on the previous year; the SEAI provisional estimate for installed wind capacity in 2024 is 4.85GW, based on EirGrid data to the end of August, and ESB-Networks data to the end of September 2024.[33] Ireland's installed capacity for wind generation in December 2025 was over 5GW, according to Wind Energy Ireland reporting in February 2026[34]. 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.

1.5.6 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[35] includes policy support for the development and upgrading of electricity grid infrastructure, the delivery of renewable electricity generation capacity, and the introduction of regional renewable electricity capacity allocations for each of the three Regional Assemblies by 2030. In accordance with the relevant National Policy Objectives, Regional Assemblies and Local Authorities must plan for sufficient wind and solar energy development in order to achieve the targeted regional renewable electricity capacity allocations outlined in the draft National Planning Framework, taking into account factors influencing delivery including attrition rates and changes to energised capacity levels, in addition to current installed energised capacity.

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

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

[33] *SEAI (December 2024) Energy in Ireland 2024 Report* <https://www.seai.ie/sites/default/files/publications/energy-in-ireland-2024.pdf>
[34] *Wind Energy Ireland (February 2026) Wind Energy Report Annual & December 2025* <https://windenergyireland.com/blog/irish-wind-farms-provided-a-third-of-our-power-in-2025>
[35] *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/>

In April 2016[36] 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 2024 to be 4.85GW.[37]

It is noted that the key driver for electricity demand in Ireland for the next number of years is the connection of large new energy users, such as data centres. This statement notes that '*Large industrial connections normally do not dominate a country's energy demand forecast but this is the case for Ireland at the moment*'. EirGrid analysis shows that demand from data centres could account for 28% of all demand by 2031 in a median demand scenario (accounts for the connection of all 1400MVA of potential demand in the connection process). The median demand scenario is now higher than 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 Gigawatt (GW) of electricity demand could materialise between 2015 and 2020 due to growth in data centres. More recently, data available from Bitpower[38] at the end of 2021 noted a 25% increase in completed data centre capacity over the past 12 months with a total of 70 operational data centres with a combined total of 900 MW of connected power capacity. Ten new data centres came online between the period of November 2020 and November 2021. The increase in growth of data centres means an increase in electricity demand, with many of the proposed data centres committing to using 100% renewable energy which will result in an increased demand for renewable electricity as detailed above.

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

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

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

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

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

[36] https://www.seai.ie/publications/Ireland___s-Energy-Targets-Progress-Ambition-and-Impacts.pdf
[37] *Sustainable Energy Authority of Ireland (2024) Energy in Ireland – 2023 Report*
[38] https://bitpower.ie/images/Reports/2021_H1_Report.pdf

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

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

Ireland will therefore have to meet even more demanding climate change and renewable energy supply obligations in order to play its part in achieving the European climate and energy ambitions. As announced in December 2022, the Irish Government have pledged to generate 80% of the country's electricity supply from renewable sources by 2030. The development of additional indigenous wind energy generating capacity, such as that proposed at the Proposed Wind Farm, 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 noted in Chapter 2, Section 2.2.

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

A number of alternative energy types have been examined by the State 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 SEAI[39] refutes this claim. While Dr Motherway agrees that biomass offers benefits and is helping Ireland to move away from fossil fuels, he states that "*the conversion of Moneypoint to biomass has been considered a number of times over the years, including actual trials of small amounts of biomass in the station. However, the technical and economic challenges have proven far greater than some would have us believe*".

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

Importation raises the question; would this be cost effective? As prices are volatile and availability of biomass is difficult to predict Ireland would become dependent on the uncertainty of imported biomass. It is also noted that there will be emissions from transport and distribution. The further the biomass is transported, the greater the greenhouse gas emissions[40]. So, while biomass is currently contributing to a move to renewable energy production, on its own it is not the sole answer to meeting

[39] http://www.seai.ie/News_Events/Press_Releases/2014/Biomass-is-a-big-part-of-the-solution-but-not-the-whole-solution.html
[40] *Sustainability Criteria Options and Impacts for Irish Bioenergy Resources (SEAI 2019)*

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.

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 alternate energy production. It should be noted that Moneypoint ceased burning of coal on the 20th of June 2025 [41] and has converted to the use of Heavy Fuel Oil. It will be used as a back-up, out of market generator, that EirGrid can call on any time they need extra generation capacity to ensure a stable supply of electricity for the Irish market. More specifically, the report notes that it is currently planned to stop burning coal at Moneypoint by 2025 as well as peat at Bord na Mona and ESB stations by 2030. In April 2025, the DECC published 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 the CAP25 can be seen in Chapter 2.

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.

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 19,731 tonnes of carbon emissions per annum from the largely carbon-based traditional energy mix, the detail of which is presented in Section 11.4.3.2 in Chapter 11: Climate of this EIAR.

The World Health Organisation (WHO) in 2019 estimated that ambient (outdoor) air pollution caused 4.2 million deaths worldwide in 2019.[42] The Environmental Protection Agency (EPA) report '*Air Quality in Ireland 2024*[43] 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*'[44] 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 numbers, 610 deaths due to poor air quality were estimated in Ireland in 2020 with 490 Irish deaths attributed to $PM_{2.5}$, 50 Irish deaths attributed to nitrogen oxides (NO_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.

[41] https://www.rte.ie/news/2025/0620/1519429-moneypoint-power-station/
[42] https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health
[43] *Air Quality in Ireland Report 2024* <https://www.epa.ie/publications/monitoring--assessment/air/air-quality-in-ireland-2024.php>
[44] *Air Quality in Europe 2022* <https://www.eea.europa.eu/publications/air-quality-in-europe-2022>

The EEA published a briefing on Europe's Air Quality Status[45]in April 2025 and presents the status of concentrations of pollutants in ambient air in 2023 and 2024 for regulated pollutants, in relation to both EU air quality standards and the 2021 WHO guideline levels. The assessment shows that, in spite of constant improvements, exceedances of air quality standards are common across the EU, with concentrations well above the latest WHO recommendations.

The EPA 2020 report '*Ireland's Environment – An Assessment*'[46] 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:

> *"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. At a national level, Ireland currently has one of the highest external dependencies on imported sources of energy, such as coal, oil and natural gas. As detailed in the SEAI Report *Energy in Ireland 2024*, Ireland has a high import dependence on oil and gas and is essentially a price-taker on these commodities. Ireland's import dependency decreased slightly from 80% in 2022 to 78% in 2023 due to reduced net imports, which were only partially offset by the reduction in primary energy requirement.[47] From September 2023 to September 2024, Ireland imported 78% of its gas supply and supplied 22% of its gas supply from indigenous sources.

The '*Energy in Ireland 2025 Report*'[48] 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 are to achieve the 9 GW target set in the Climate Action Plan 2025, 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.

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[45] *EAA (2025) Air Quality Status Report 2025 <https://www.eea.europa.eu/en/analysis/publications/air-quality-status-report-2025#:~:text=Air%20pollution%20has%20reduced%20steadily,risks%20posed%20by%20air%20pollution.>*
[46] *Ireland's Environment – An Assessment (2020) < https://www.epa.ie/publications/monitoring-assessment/assessment/state-of-the-environment/EPA_Irelands_Environment_2020.pdf >*
[47] *SEAI (2024) Energy in Ireland – 2024 <https://www.seai.ie/sites/default/files/publications/energy-in-ireland-2024.pdf>*
[48] *Ibid.*

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 Irelands 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.[49]

The Proposed Project will be capable of providing electrical energy to approximately 19,542 Irish households per year, based on the average Irish household using 4.2 MWh of electricity[50], as per calculations presented in Section 4.4.1.1.7 of Chapter 4: Description of the Proposed Development for this EIAR.

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 2023 – 2032'* (January 2024) notes that the median electricity demand forecast on the island of Ireland is expected to grow by 21% in 2030. Much of this growth is expected to come from new data centres in Ireland.

1.5.8.1 Employment Potential

The 2014 report '*The Value of Wind Energy to Ireland'*, published by Pőyry, stated that growth of the wind sector in Ireland could support 23,850 jobs (construction and operational phases) by 2030. The reduction in fuel imports not only benefits security of supply but also creates a net transfer to the Irish economy, potentiality allowing for a saving of almost €671m of expenditure on fuel imports per annum by 2030.

A 2021 MaREI report[51] includes a prospective view of Ireland's energy sector in 2050 whereby an additional 25,000 jobs would be created in the development of onshore and offshore wind to meet the zero carbon targets as pledged in the Climate Action and Low Carbon Development Act 2021 discussed in section 1.5.1 above.

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

It is estimated that the Proposed Project has the potential to create up to 100 jobs during the construction phase and 2-3 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.

Cunlaghfadda Green Energy Ltd is committed to delivering local benefits and working in partnership with local communities. If the project receives planning permission and is constructed, Cunlaghfadda Green Energy Ltd will establish a Community Benefit Fund as part of their long-term commitment to the local area. The Community Benefit Fund will see funds from the project go towards supporting positive local initiatives and activities.

The fund will be set up once the project is energised, and Cunlaghfadda Green Energy Ltd will appoint an administrator to implement the funding strategy and decisions and ensure good governance in the funding administration. A volunteer committee, drawn from the local community, will be set up to

[49] *WEI (2025)* https://windenergyireland.com/latest-news/7836-wind-energy-saved-ireland-over-1-2-billion-on-gas-in-2024
[50] *March 2017 CER (CRU) Review of Typical Consumption Figures Decision Paper* https://www.cru.ie/document_group/review-of-typical-consumption-figures-decision-paper/
[51] *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

decide on applications made to the Community Benefit Fund by local groups or individuals for funding.

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

1.5.8.2 Commercial Rates

Commercial rate payments from the Proposed Project will be provided to the respective local authority each year which will be redirected to the provision of public services. 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.

1.6 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 serves to highlight any areas where mitigation measures may be necessary in order to protect the surrounding environment from the possibility of any significant effects arising from the Proposed Project.

It is important to distinguish the Environmental Impact Assessment (EIA) to be carried out by the Planning Authority, from the EIAR accompanying the planning application. 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 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 of the revised EIA Directive 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 likely significant effects 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, vulnerability to major accidents and natural disasters, together with the interaction of the foregoing and a schedule of mitigation and monitoring.

The chapters of this EIAR are as follows:

- Introduction
- Background to the Proposed Project
- Consideration of Reasonable Alternatives
- Description of the Proposed Project
- Population and Human Health
- Biodiversity
- Birds
- Land, Soils and Geology
- Water
- Air Quality
- Climate
- Noise and Vibration
- Landscape and Visual
- Archaeological, Architectural and Cultural Heritage
- Material Assets (including Traffic and Transport, Aviation, Telecommunications and Other Utilities)
- Major Accidents and Natural Disasters
- Interactions of the Foregoing
- Schedule of Mitigation 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, any likely significant effects of the Proposed Project, and mitigation measures presented in the grouped format.

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, 2022), an assessment of the likely significant effects of the potential 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 the likely significant effects of potential impacts are described with reference to the extent, magnitude, complexity, probability, duration, frequency, reversibility and transboundary nature (if applicable) of the impact.

The classification of impacts in this EIAR follows the definitions provided in the Glossary of Impacts contained in the EPA Guidelines (EPA, 2022) 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 Guidelines (EPA, 2022) document. 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
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 & Context	Extent	Describe the size of the area, number of sites and the

Impact Characteristic	Term	Description
		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
	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)

Impact Characteristic	Term	Description
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, duration 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 were responsible for completion of this EIAR of the Proposed Project. Further details regarding project team members are provided below.

The EIAR project team comprises a multidisciplinary team of experts with extensive experience in the assessment of wind energy developments and in their relevant area of expertise. The qualifications and experience of the principal staff from each company involved in the preparation of this EIAR are summarised below. Each chapter of this EIAR has been prepared by a competent expert in the subject matter.

Table 1-3 Companies and Staff Responsible for EIAR Completion

Consultants	Principal Staff Involved in Project	EIAR Input
MKO Tuam Road, Galway, H91 VW84	Brian Keville Michael Watson Sean Creedon Órla Murphy Robert Kennedy Natalia Stolarska Keelin Bourke Joye Atkinson Colm Ryan Ronan Dunne Francesca Rowson Mike Amiel Mekell Pat Roberts John Hynes Sarah Mullen Aoife Joyce Clare Mifsud Kate O'Donnell Katy Beckett Dervla O'Dowd Padraig Cregg Patrick Manley Nessa Lee Jack Workman Dija Mazonaite Flora Ballario Gabriela Oliviera	Project Managers, Scoping and Consultation, Preparation of Natura Impact Statement, EIAR Report Chapters: 1. Introduction 2. Background to the Proposed Project 3. Consideration of Reasonable Alternatives 4. Description of the Proposed Project 5. Population & Human Health 6. Biodiversity 7. Ornithology 10. Air Quality 11. Climate 13. Landscape & Visual 15. Material Assets (non-Traffic) 16. Major Accidents and Natural Disasters 17. Interaction of the Foregoing 18. Schedule of Mitigation Measures
Hydro Environmental Services 22 Lower Main Street Dungarvan Co. Waterford	Michael Gill Conor McGettigan	Drainage Design, Preparation of EIAR Chapters: 8. Land, Soils & Geology 9. Water

Consultants	Principal Staff Involved in Project	EIAR Input
Fehily Timoney & Company The Grainstore Singletons Lane, Bagnelstown, Co. Carlow.	Ian Higgins	Preparation of Peat Stability Risk Assessment and Peat and Spoil Management Plan
AWN The Tecpro Building, Clonshaugh Business & Technology Park, Dublin 17	Dermot Blunnie Miguel Cartuyvels	Baseline Noise Survey, Preparation of EIAR Chapter 12. Noise and Vibration
Irish Archaeological Consultancy Ltd Unit G1, Kilcoole Rd, Network Enterprise Park, Co. Wicklow	Faith Bailey Jonny Small	Preparation of EIAR Chapter 14. Archaeological, Architectural and Cultural Heritage
Alan Lipscombe Traffic and Transport Consultants Claran, Headford, Co. Galway	Alan Lipscombe	Swept Path Analysis, Preparation of EIAR Chapter 15. Material Assets - Traffic and Transport

3.1.1 Project Team Members

3.1.1.1 MKO

Brian Keville B.Sc. (Env.)

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

Michael Watson BA. MA. CEnv. PGeo

Michael Watson is Environmental Director at MKO, overseeing a team which comprises over 50 highly skilled environmental professionals. Michael has over 20 years' experience in the environmental sector. Following the completion of his Master's Degree in Environmental Resource Management, Geography, from National University of Ireland, Maynooth he worked for the Geological Survey of Ireland and then a prominent private environmental & hydrogeological consultancy prior to joining MKO in 2014. Michael's professional experience includes managing Environmental Impact Assessments, EPA License applications, hydrogeological assessments, environmental due diligence and general environmental

assessment on behalf of clients in the renewables, waste management, public sector, commercial and industrial sectors nationally. Michaels 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. 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 environment 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 ISEP, 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.

Órla Murphy

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

Robert Kennedy

Robert is a Project Environmental Scientist working as part of MKO's Renewables Team, having joined the company in June 2022. Robert holds a BSc in Environmental Biology and an MSc in Environmental Policy, both from University College Dublin. Robert's key strengths and areas of expertise are in project management, environmental impact assessment, renewable energy, report writing, policy analysis, and research. Since joining MKO, Robert has gained experience in working with and coordinating large multi-disciplinary teams that are involved in the production of EIA Reports for large-scale renewable energy developments. Robert has experience in working on both onshore and offshore wind farm projects. Robert also played a role in developing MKO's new service offering around Biodiversity Net Gain and other nature-positive mechanisms. Prior to taking up his position with MKO, Robert worked in financial services and gained over six years' experience in different roles in Canada and Ireland, giving him a broad mix of skills and experience to apply to his current role with MKO. Robert also holds a membership with the Institute of Sustainability and Environmental Professionals (ISEP).

Natalia Stolarska Bsc Msc

Natalia Stolarska is a Project Environmental Scientist within the environment renewables team in MKO with over 2 years' of professional experience as an environmental consultant. Natalia holds a BSc in Earth and Ocean Science and an MSc in Environmental Leadership. Natalia's key strengths and areas of expertise are in managing wind farm EIAR projects, drafting and reviewing of EIAR chapters, wind farm feasibility studies and QGIS mapping. Since joining MKO Natalia has also been involved in coordinating environmental site work for a wide range of developments, assisting in stakeholder engagement, scoping exercises, organising, attending and leading pre-application meetings with local authorities and An Coimisiún Pleanála. Natalia also holds a membership with the Institute of Sustainability and Environmental Professionals (ISEP).

Keelin Bourke

Keelin is an Environmental Scientist with MKO, with over 2 years' experience in private consultancy, having joined the company in September 2023. Keelin holds a BSc (Hons) in Environmental Science from University College Cork and an MSc (Dist) in Environmental Engineering from Trinity College Dublin. Keelin's current key strengths and areas of expertise are in environmental mapping, environmental surveying, and environmental report writing. Keelin has experience in conducting environmental impact assessments of a broad range of topics, including population and human health assessments, air quality assessments, assessments of built services and infrastructure and major accidents and natural disaster risk assessments for both onshore and offshore wind energy projects. Prior to taking up her position with MKO, Keelin worked as an Environmental Health and Safey Officer in an EPA licensed Waste Transfer Facility in Cork City. Since joining MKO, Keelin has become a member of the MKO Environmental Renewables Team and has been involved in preparing and managing Environmental Impact Assessments and in leading large multi-disciplinary teams in order to produce robust Environmental Impact Assessment Reports for large-scale onshore and offshore wind energy developments.

Joye Atkinson

Joye is a Graduate Environmental Scientist with MKO with over one year of professional consultancy experience and holds a BSc (Hons) in Social Science from University College Dublin. Prior to joining MKO, she completed a one-year internship with RMLA Planning, where she contributed to a range of projects across both the public and private sectors. Joye's core strengths include drafting Environmental Impact Assessment Report (EIAR) chapters, as well as strong report writing skills, with the ability to present complex environmental data clearly, concisely, and in line with regulatory requirements. At MKO, Joye's work focuses on report writing, EIAR chapter preparation, and GIS-based mapping. She has contributed to multiple onshore wind projects across Ireland, supporting both technical analysis and environmental assessment.

Colm Ryan

Colm Ryan is the Planning Director of MKO, Planning & Environmental Consultants, with over 16 years of experience as a planner in both private practice and public sector combined. Prior to joining MKO, Colm worked as a planner with a UK and Ireland based Renewable Energy developer. Colm has also spent part of his career in local authority as a planner with Laois County Council. Colm has significant experience in a wide range of projects and extensive experience in large scale residential, renewables and marine based developments. Colm currently heads up the Planning Division in MKO with responsibility for Planning, Project Management, Health & Safety and Project Communications. Colm holds BA (Hons) in Geography & Irish and Masters in Civic Design Town & Regional Planning. Prior to taking up his position with MKO in May 2017, Colm worked as a Senior Planner with Lightsource Renewable Energy Ltd. and held previous posts with Partnerships for Renewables, South Kesteven District Council, Planning Aid, Frank O Gallachoir & Associates in Bray and Laois County

Council. Colm is a chartered town planner with specialist knowledge in renewable energy, mixed use development and residential. Colm's key strengths and areas of expertise are in large scale renewable energy development particularly in the ground mounted solar, delivery of local community engagement processes on contentious planning applications, management of community and developers interest through the planning process and post or pre-planning due diligence. Since joining MKO as a Senior Planner Colm has been overseeing and managing a wide range of development projects such as large scale solar applications, site feasibility work for potential wind energy projects, large scale housing and mixed use schemes. Within MKO Colm plays a large role in the management of staff members including several aspects of business development. Colm has proven negotiation skills and stakeholder relationship building across numerous development projects in Ireland and the UK and is a corporate member of the Irish Planning Institute.

Francesca Rowson

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

Ronan Dunne

Ronan Dunne is a Project Planner with MKO having joined the company in June 2022. Ronan, with over four years of experience in the planning sector, holds a BSc (Hons) in City Planning and Environmental Policy, and a MSc (Hons) in Urban and Regional Planning from University College Dublin where he focused his studies on wind energy development. Since joining MKO, Ronan has been involved in a range of infrastructure projects, including onshore and offshore wind, solar, battery storage and grid infrastructure developments. In his role as a Project Planner, Ronan works with multidisciplinary teams including members from MKO's Environmental, Ecological and Ornithological departments as well as sub-contractors from various fields in the develop/deliver reports to facilitate the planning process. Through his professional and academic experience, Ronan has gained skills in renewable energy planning, Environmental Impact Assessment, strategic and spatial planning, development management, planning appeals, condition compliance, and project management.

Mike Amiel Mekell BA, MSc

Mike Amiel Mekell is a Planner with MKO with over 2.5 years of experience in private practice. 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.

Pat Roberts B.Sc. (Env.)

Pat Roberts is Principal Ecologist with MKO with over 20 years post graduate experience of providing ecological services in relation to a wide range of developments at the planning, construction and monitoring stages. Pat holds B.Sc.(Hons) in Environmental Science. Pat has extensive experience of providing ecological consultancy on large scale industrial and civil engineering projects. He is highly experienced in the completion of ecological baseline surveys and impact assessment at the planning stage. He has worked closely with construction personnel at the set-up stage of numerous construction sites to implement and monitor any prescribed best practice measures. He has designed numerous Environmental Operating Plans and prepared many environmental method statements in close conjunction with project teams and contractors. He has worked extensively on the identification, control and management of invasive species on numerous construction sites. Prior to taking up his position with MKO in June 2005, Pat worked in Ireland, USA and UK as a Tree Surgeon and as a nature conservation warden with the National Trust (UK) and the US National Park Service. Pats key strengths include his depth of knowledge and experience of a wide range of ecological and biodiversity topics and also in his ability to understand the requirements of the client in a wide range of situations. He is currently responsible for staff development, training and ensuring that the outputs from the ecology team are of a very high standard and meet the requirements of the clients and relevant legislation and guidelines. He is a full member of the Chartered Institute of Ecologists and Environmental Managers (CIEEM) Pat sits on the Irish Policy Group of the CIEEM and reviews and comments on Irish and European Policy and legislation in this capacity. He is also an assessor for CIEEM membership applications.

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

John Hynes is the Ecology Director at MKO, with over 12 years' professional experience in the public and private sector. John oversees MKO's Ecology, Ornithology, Forestry, Bats, and GIS teams. John holds a B.Sc. in Environmental Science and a M.Sc. in Applied Ecology. John's key strengths and areas of expertise are in Appropriate Assessment of plans and projects, Ecological Impact Assessment, Flora and Fauna survey methods and design, project management and project strategy. John is experienced as a coordinator or large multi-disciplinary teams on complex ecological projects. John has been involved as a lead Ecologist on a range of energy infrastructure, commercial, transport, housing, forestry, biodiversity net gain and nature restoration projects. John is a Full member of the Chartered Institute of Ecology and Environmental Management, a member of Galway County Council Climate and Biodiversity Special Policy Committee (SPC) and a contributor to the Wind Energy Ireland (WEI) Biodiversity and Sustainability Working Group.

Sarah Mullen

Sarah is a Project Director (Ecology) with MKO with 10 years' experience in ecological consultancy. Sarah holds a B.Sc. (Hons) in Botany, an M.Sc. in Biodiversity and Conservation and a Ph.D. in Botany. Since joining MKO Sarah has been responsible for the management, co-ordination and undertaking of flora, fauna and habitat surveys for a range of projects including large-scale energy infrastructure projects, residential and commercial developments, tourism projects and biodiversity monitoring and restoration projects. She has overseen the preparation of ecological reports to accompany planning applications including Ecological Impact Assessments, Stage 1 and Stage 2 Appropriate Assessment reports, Invasive Species Management Plans and Biodiversity/Habitat

Management Plans. She currently oversees the general Ecology team at MKO. Sarah's key strengths and areas of expertise are in terrestrial flora and fauna ecology, including vegetation surveys, habitat mapping, invasive species surveys, mammal surveys, Appropriate Assessment and Ecological Impact Assessment. She holds membership with the Chartered Institute of Ecology and Environmental Management.

Kate O'Donnell

Kate is a Senior Ecologist with MKO with over 6 years of experience in ecological consultancy. Kate holds a BSc (Hons) in Ecology and Environmental Biology from University College Cork and has also completed a Level 8 Special Purpose Award in Digital Mapping and GIS. Kate's key strengths and areas of expertise are in terrestrial ecology, including vegetation surveys, habitat identification, invasive species surveys, mammal surveys, Appropriate Assessment and Ecological Impact Assessment. Prior to taking up her position with MKO in February 2022, Kate worked as an Ecologist with RPS where she gained experience in Ecological Impact Assessment, Appropriate Assessment and multidisciplinary ecological surveys for a range of projects including IDA developments, flood relief schemes, road network improvements and greenway developments. She is trained in carrying out non-volant mammal surveys, freshwater pearl mussel surveys, bat surveys and in taking vegetation relevés of vascular plants. Kate has extensive experience in habitat identification and habitat mapping. Since joining MKO, Kate has been responsible for the management, co-ordination and undertaking of flora, fauna and habitat surveys in accordance with NRA Guidelines for projects including wind farm developments, Greenways and housing developments and for the preparation and review of Ecological Impact Assessments, Stage 1 and Stage 2 Appropriate Assessment reports and EIA inputs. Kate is the Lead Ecologist on several large-scale renewable energy and infrastructure projects and manages a team of Ecologists within MKO. She is an Associate member of the Chartered Institute of Ecology and Environmental Management.

Katy Beckett

Katy is a Project Ecologist with MKO with over two years' experience in ecological consultancy. Katy holds a B.A. (Hons) in Environmental Science from Trinity College Dublin during which she researched the potential hybridisation of invasive plants with Irish native flora. She also holds an M.Sc. in Biodiversity and Conservation from Trinity College Dublin. During these academic studies she focused on conservation, gaining field and desk skills, and completing a thesis on the impact of wind farms on Irish pollinators with the Nature+ energy research group. Katy's main focus and expertise are in terrestrial ecology and conservation, largely focusing on renewable energy projects since joining MKO. Field skills are a key strength, from high-level constraints mapping to completing detailed multidisciplinary ecological walkover surveys, habitat mapping, mammal surveys and vegetation analyses, as well as specialist surveys for rare and threatened plant species, Annex I habitat condition assessments, marsh fritillary larval web and habitat condition assessments, Odonata surveys and both wintering and breeding bird surveys. Katy is also skilled in QGIS mapping, data analysis and scientific communication, preparing detailed Appropriate Assessment Screening Reports, Natura Impact Statements, Ecological Impact Assessments, EIAR Biodiversity Chapters, Biodiversity Management and Enhancement Plans and other site-specific ecological reporting. She is a Qualifying member of the Chartered Institute of Ecology and Environmental Management and continues to upskill through internal training as well as external courses through the Botanical Society of Britain and Ireland, National Biodiversity Data Centre, Birdwatch Ireland and the British Trust for Ornithology.

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

Aoife Joyce is a Project Director (Ecology) with 6 years' professional experience in ecological assessments and has completed CIEEM and BCI courses in Bat Impacts and Mitigation, Bat Tree Roost Identification and Endoscope training, Bat ID, Trapping and Handling and Kaleidoscope Pro Analysis.

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

Clare Mifsud

Clare Mifsud (Ph.D.) is a Project Bat Ecologist at MKO with over 15 years' experience in bat research and conservation. Clare completed her PhD in Conservation Biology of Bats at the University of Malta, where her research focused on bat genetics, ecology and bioacoustics. She has since specialised in bat survey design and delivery for wind farm and infrastructure projects, including static detector, transect, emergence and re-entry surveys, as well as acoustic analysis and reporting. Clare has prepared numerous EIARs and bat reports, advises on mitigation design, and contributes to biodiversity management planning. Prior to joining MKO in February 2025, she worked as a Biological Expert and Consultant on an EU-funded marine conservation project between Malta and Sicily, and as a Lecturer at the University of Malta. She remains actively engaged with conferences and professional networks to stay at the forefront of bat research and applied conservation practice.

Dervla O'Dowd

Dervla O'Dowd is Associate Director with responsibility for MKO's dedicated Ornithology Team with nineteen years of experience in environmental consultancy as a Senior Ecologist and Project Manager. Dervla graduated with a first-class honours B.Sc. in Environmental Science from NUI, Galway in 2005 and joined Keville O'Sullivan Associates in the same year. Dervla has gained extensive experience in 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 Reports and acted as EIAR co-ordinator on many of these projects. Dervla has also extensive experience in the provision of ecological 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. Currently, Dervla is responsible for the management of MKO's dedicated Ornithology Team coordinating MKO's portfolio of bird survey and assessment work required on major infrastructural projects, with emphasis on wind energy projects. Dervla's key strengths and areas of expertise are in project management, project strategy, business development and survey co-ordination to ensure the efficient operation of the Ornithology team's field survey schedule. Dervla holds full membership of the Chartered Institute of Ecology and Environmental Management and current Safe Pass card.

Padraig Cregg M.Sc., B.Sc.

Padraig is a Principal Ornithologist with MKO and has over eleven 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. Patrick Manley

Nessa Lee

Nessa Lee is a Project Ornithologist with MKO with over 3 years of experience in the ornithology industry. Nessa holds BSc. (Hons) in Environmental Science. Prior to taking up her position with MKO in July 2021, Nessa worked as a research assistant shadowing a PhD student and assisted in Fieldwork in the National University of Ireland, Galway. Nessa is a chartered environmental scientist with key strengths and areas of expertise in project management, ornithological and ecological field survey techniques, scientific data collection and management, and report writing. Since joining MKO Nessa has been involved in carrying out ornithological management for a variety of projects mostly in the renewables sector, with more in the pipeline. Within MKO Nessa plays a large role in the management of her pod and works as a part of a large multi-disciplinary team to produce environmental impact assessment reports.

Patrick Manley

Patrick Manley is a Senior Ornithologist with MKO with over 7 years of experience in environmental consultancy. Patrick holds BSc (Hons) in Geology from University College Dublin. Since joining MKO, Patrick has worked on wind farm projects, solar farm projects, residential developments, data centres, county council projects and National Parks and Wildlife Service projects. He specialises in ornithological consulting, including Environmental Impact Assessments and has specialist knowledge in designing, executing and project managing ornithological assessments, primarily in the renewable industry. Prior to joining MKO in August 2016, Patrick gained experience through his involvement in several bird conservation projects, including protected curlew, seabirds and waders. Within MKO, Patrick plays a large role in the management and confidence building of junior members of staff and works as part of a large multi-disciplinary team to produce EIAR chapters.

Jack Workman

Jack is the Landscape & Visual Project Director at MKO and a Technician Member of the British Landscape Institute with over 6 years of experience in LVIA of wind energy developments. Jack 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, as well as supporting the MKO graphics, CAD and drone surveying teams. 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. 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

Dija Mazonaite is a Project Environmental Scientist - LVIA Specialist at MKO with over 3 years of professional consultancy experience. Dija has a BSc (Hons) in Geography & Geosystems, PGCert in Marine Spatial Planning, and was recognised as a University Scholar at the University of Galway. Dija's primary role at MKO is producing and reviewing the LVIA chapter of EIA reports for large-scale 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 an active participant of the Irish National Landscape Forum. Dija also regularly delivers guest lectures for students on the topic of LVIA at top third level institutions in Ireland.

Flora Ballario

Flora is a CAD Technician at MKO with over eight years of drafting experience across various sectors of the building industry. She holds a BSc (Hons) in Architecture and Urbanism from FMU | FIAM–FAAM University Centre in São Paulo, Brazil. Prior to joining MKO in November 2025, Flora worked as an Architect at Fergal Bradley & Co. and as an Architectural Assistant and Graphic Designer for an engineering company. She has been involved in a wide range of commercial and residential projects, primarily responsible for preparing planning drawing packages, and also has experience working on FSCs, DACs, and one-off housing planning applications. Her key strengths and areas of expertise are in Auto CAD.

Gabriela Oliviera

Gabriela is a CAD Technician at MKO with over 6 years of drafting experience in various sectors of the building industry. She holds BSc (Hons) in Architecture and Urbanism from University of Fortaleza, Ceara, Brazil. Prior to taking up her position with MKO in July 2023, Gabriela worked as an Architect for Fergal Bradley & Co. and as an Architect Assistant Graphic Design for an engineer company. She was primarily involved in a variety of Commercial / Residential / Landscape projects where she was responsible for the planning drawing packages but also has experience working in FSC's /DAC's and one-off housing planning applications. Her key strengths and areas of expertise are in Auto CAD, Revit and SketchUp (3D).

3.1.1.2 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. FT deliver projects in Ireland and internationally in their core competency areas of Waste Management, Environment and Energy, Civils Infrastructure, Planning and GIS and Data Management. They provide specialist geotechnical engineering and engineering geology advice to local authorities, contractors and consultants, particularly for infrastructure projects forming part of the National Development Plan and also for private, commercial and residential developments as they move on to sites with more complex ground conditions.

Ian Higgins

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

Ian has experience in many areas of civil engineering including highways, railways, energy projects and commercial developments. Ian's responsibilities include managing junior engineers, reviewing work carried out for ground investigation, reporting and design. Ian has also experience in using a number of geotechnical software packages including slope stability, finite element, pile design and retaining wall design.

3.1.1.3 Hydro Environmental Services Ltd

Michael Gill

Michael Gill (P. Geo., B.A.I., MSc, Dip. Geol., MIEI) is an Environmental Engineer/Hydrologist with over 23 years' environmental consultancy experience in Ireland. Michael has completed numerous hydrological and hydrogeological impact assessments of wind farms in Ireland. He has also managed EIAR assessments for infrastructure projects and private residential and commercial developments. In addition, he has substantial experience in wastewater engineering and site suitability assessments, contaminated land investigation and assessment, wetland hydrology/hydrogeology, water resource assessments, surface water drainage design and SUDs design, and surface water/groundwater interactions. For example, Michael has worked on the EIS/EIARs for Slievecallan Wind Farm, Cahermurphy (Phase I & II) Wind Farm, and Carrownagowan Wind Farm, and over 100 other wind farm related projects across the country.

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 routinely prepares the land, soils and geology chapters of environmental impact assessment reports for renewable energy developments, bedrock quarries, industrial and residential developments. Conor has worked on the EIARs for over 20 no. wind farms projects across the country.

3.1.1.4 Irish Archaeological Consultancy Ltd

Irish Archaeological Consultancy Ltd (IAC) is a private archaeological consulting company based in Ireland. It was established in 1998. They offer professional nationwide services ranging from pre-planning assessments to archaeological excavation, and cater for clients in state agencies, private and public sectors.

Faith Bailey

Faith (MA Cultural Landscape Management, BA (Hons) Archaeology, MIAI, MCIfA) is a licenced eligible archaeologist, a member of the Chartered Institute of Field Archaeologists, a member of the Institute of Archaeologists of Ireland and has over 22 years' experience working in the commercial cultural heritage sector. She has been responsible for the production and delivery of multiple archaeological, architectural and cultural heritage assessments and EIAR for renewable energy projects, including The Yellow River Wind Farm (Co. Offaly), Derrysallagh Wind Farm (Co. Sligo), Derreenacrinnig Wind Farm (Co. Cork) and the Robertstown Wind Farm (Co. Waterford).

Jonny Small

Jonny (PhD Archaeology, MSci GIS and Cultural Heritage, NFQ Level 7 Cert Buildings Archaeology, MIAI) is an archaeological consultant and a member of the Institute of Archaeologists of Ireland. Jonny

has over seven years of experience working in the archaeological and cultural heritage sector, both in research, fieldwork and consultancy. Jonny has been responsible for the production of impact assessments and EIARs. This includes renewable energy projects such as Ballyfasy Wind Farm (Co. Kilkenny), Cooloo Wind Farm (Co. Galway) and Gannow Wind Farm (Co. Galway). Jonny is also responsible for the production of Conservation Management Plans, built heritage reports and fieldwork reports, including large-scale, multi-period High Speed Two (HS2) sites.

3.1.1.5 Alan Lipscombe Traffic and Transport Consultants

Alan Lipscombe

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

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

3.1.1.6 AWN Consulting

Dermot Blunnie

Dermot Blunnie (Associate (Acoustics)) 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 including Oweninny Phase 3 Wind Farm, Garracummer Wind Farm, Meenbog Wind Farm, Lettergull Wind Farm, Ardderroo Wind Farm, Derryadd Wind Farm, Lisheen Wind Farm, Knockalough Wind Farm, Carrickaduff Wind Farm, Knockacummer Wind Farm, Kill Hill Wind Farm, Upperchurch Wind Farm.

Miguel Cartuyvels

Miguel Cartuyvels (Acoustic Consultant) holds a BEng (Hons) in Industrial Engineering and is a member (AMIOA) 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. He has commissioned noise surveys and

completed noise impact assessments for numerous projects including Richfield Wind Farm, Grousemount Wind Farm and Knockraha 220kV Celtic Interconnector Substation.

3.2 Difficulties Encountered

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

3.3 Viewing and Purchasing of the EIAR

Copies of this EIAR will be available online for the wind farm planning application, including the Non-Technical Summary (NTS), on the Planning Sections of the Mayo County Council website, under the relevant Planning Reference Number (Pl. Ref. 2660398). The grid connection planning application will also be available online on the An Coimisiún Pleanála website, under the relevant Case Reference Number (to be assigned on lodgement of the application).

Mayo County Council: https://www.mayo.ie/
An Coimisiún Pleanála: http://www.pleanala.ie/

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

Second Floor, Mayo County Council
Áras an Chontae
The Mall
Castlebar
Co. Mayo

An Coimisiún Pleanála
64 Marlborough Street
Rotunda
Dublin 1

The EIAR will also be available to view online via the Department of Planning, Housing and Local Government's EIA Portal, which will provide a link to the planning authority's website on which the application details are contained. This EIA Portal was recently set up by the Department as an electronic notification to the public of requests for development consent which are accompanied by an EIAR. (https://www.housing.gov.ie/planning/environmental-assessment/environmental-impact-assessment-eia/eia-portal)

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