2. BACKGROUND TO THE PROPOSED DEVELOPMENT

This section of the Environmental Impact Assessment Report (EIAR) presents information on renewable energy and climate change policy and targets, the strategic, regional and local planning context for the Proposed Development, planning history, scoping and consultation, as well as setting out the nature of the cumulative impact assessment process undertaken.

2.1 Introduction

This section of the EIAR presents the policies and targets which have been put in place at the various levels of Government, regional, national and international, in relation to renewable energy and climate change. The details below set out the need for the Proposed Development to aid Ireland in meeting its national targets and European commitments in relation to climate change and decarbonisation and elaborates on the 'need for the development' expressed in Chapter 1.

References to the Proposed Development in this EIAR:

- Where the 'Proposed Development' is referred to, this relates to all the project components described in detail in Chapter 4 of this EIAR i.e. Wind Farm Site and Grid Connection as detailed below.
- Where 'the Site' is referred to, this relates to the primary study area for the EIAR, as delineated by the EIAR Site Boundary in green as shown on Figure 1-1 of the EIAR.
- Where the 'Wind Farm Site' is referred to, this refers to turbines and associated foundations and hard-standing areas, meteorological mast, site entrance, junction accommodation works, access roads, temporary transition compound and upgrades to roads along the turbine delivery route, temporary construction compounds, temporary transition compound, 110kV electrical substation, underground cabling, borrow pits, site drainage, tree felling, amenity works, biodiversity enhancement areas and all ancillary works.
- Where 'Grid Connection' is referred to, this refers to the underground 110kV electrical cabling and all associated site development works connecting the Wind Farm Site to the existing Ardnacrusha 110kV electrical substation.

This EIAR, along with a Nature Impact Statement (NIS), will assess the Proposed Development in its entirety i.e., the proposed Wind Farm Site and the proposed Grid Connection. This EIAR and NIS will accompany the planning permission applications for the Wind Farm Site and Grid Connection which will be made to An Bord Pleanála in accordance with the provisions of Section 37A and Section 182A of the Planning and Development Act 2000, as amended. Both the EIAR and NIS contain the information necessary for An Bord Pleanála to complete the Appropriate Assessment and Environmental Impact Assessment as required for these planning permission applications.

For clarity in this EIAR, all elements of the Proposed Development, proposed Wind Farm Site and the proposed Grid Connection will be assessed cumulatively and in combination with other plans and projects to aid the competent authority in carrying out an Environmental Impact Assessment (EIA). Unless stated otherwise, chapters will be assumed to assess the Proposed Development which combines the respective elements of the proposed Wind Farm Site and the proposed Grid Connection. If stating otherwise, a chapter will assess both the proposed Wind Farm Site or the proposed Grid Connection.

The Proposed Development will comprise of 9 No. turbines with a limited tip height range of 179.5 metres to 185 metres and all associated foundations and hardstanding areas, access roads and entrance(s) including upgrade of existing site roads and provision of new roads, 110kV electrical substation and wind farm control building(s), borrow pit(s), electrical cabling for 110kV grid

connection, temporary construction compounds, a temporary transition compound, amenity works, biodiversity enhancement areas, a permanent meteorological mast and upgrades to roads along the turbine delivery route. The Grid Connection includes for underground 110kV electrical cabling from the proposed onsite 110kV electrical substation within the Wind Farm Site to the Ardnacrusha 110kV electrical substation in the townlands of Castlebank and Ballykeelaun, County Clare. The underground cable route measures approximately 9.2 km in length, located within existing forestry tracks and the public road corridor. New Gas Insulated Switchgear (GIS) Bay equipment will be required at Ardnacrusha 110kV electrical substation located within the existing GIS building to facilitate connection for the proposed Wind Farm. A full description of the Proposed Development is available in Chapter 4 of this EIAR.

A design flexibility opinion issued by An Bord Pleanála (Case Reference ABP-319151-24) on 21st May 2024 accompanies the Wind Farm application. The details unconfirmed in this application are the turbine tip height, rotor diameter and hub height. The range of parameters under which the turbine dimensions will fall are specified on the site notice and in the design flexibility opinion that accompanies this application.

The Climate Action Plan (CAP) published by the Government in 2024 sets out the detail for taking action to achieve a 51% reduction in overall greenhouse gas emissions by 2030, and to reach net-zero emissions by no later than 2050. The CAP builds on the measures and technologies set out in the 2019 Climate Action Plan to deliver greater ambition and includes a roadmap for achieving these goals, which includes measures such as increasing the use of renewable energy, reducing greenhouse gas emissions from transport, and improving energy efficiency in homes and businesses. The plan is designed to ensure that Ireland achieves its legally binding 2030 targets, prepares for climate neutrality no later than 2050, and becomes a leader in responding to climate change. It is a significant step forward in Ireland's efforts to combat climate change and reduce its carbon footprint.

The primary driver behind the Proposed Development is the need to provide additional renewable energy to offset the use of fossil fuels within the electricity generating sector. Increasing electricity generation from wind power represents the most economical renewable option to reduce emissions within the power generation sector and is the most mature technology available to achieve national targets that have been established for decarbonisation. The Proposed Development represents the provision of additional wind energy generation and will contribute towards Ireland satisfying its 2030 and 2050 renewable energy targets.

2.1.1 Renewable Energy Resources

Renewable energy resources are constantly replenished through the cycles of nature, unlike fossil fuels, which are finite resources that are becoming increasingly scarce and expensive to extract. Renewable energy resources offer sustainable alternatives to our dependency on fossil fuels as well as a means of reducing greenhouse gas emissions and opportunities to reduce our reliance on imported fuels.

A gradual shift towards increasing our use of renewable energy is no longer viable. There is an urgency now to ensure real changes happens. Renewable energy development is recognised as a vital component of Ireland's strategy to tackle the challenges of combating climate change and ensuring a secure supply of energy. Ireland is heavily dependent on the importation of fossil fuels to meet its energy need. 70% of energy used in Ireland is imported from abroad, higher than the EU average of almost 60% (National Energy Security Framework 2022). This high dependency on energy imports is highly risky and Ireland is currently extremely vulnerable both in terms of meeting future energy needs and ensuring price stability. As such, expanding indigenous renewable energy supply is critical for energy security and price stability.

2.2 Climate Change Policy and Targets

International and national policy consistently identifies the need to reduce greenhouse gas (GHG) emissions and stresses the importance of reducing global warming. The context of international policy has altered over the last 30-years from being of a warning nature to the current, almost universally accepted belief, that there is a climate change emergency occurring both within Ireland and at a broader global scale. The Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report[1] published in 2021 provides a stark assessment of global climate change and presents evidence that climate changes will increase in all regions of the globe over the coming decades and that much of the damage caused by climate change up to this point is now likely irreversible, such as the rise in sea levels over the 21st century.

"*The Status of Ireland's Climate 2020*" produced by MET Eireann[2], similarly reflects on clear and distinct impacts arising from climate change effects within an Irish context:

Greenhouse gas emissions continue to rise:

- Background carbon dioxide (CO_2) concentrations reached 414 ppm in 2020 which is approximately a 50% increase compared to pre-industrial levels.
- Methane (CH_4) concentrations are at 1940 ppb - which is approximately a 170% increase compared to pre-industrial levels.
- Nitrous oxide (N_2O) concentrations are now above 330 ppb - which is approximately a 20% increase compared to pre-industrial levels.

Annual average amounts of precipitation are increasing:

- Annual precipitation was 6% higher in the period 1989 to 2018, compared to the 30-year period 1961 to 1990. The decade 2006 to 2015 was the wettest on record.

Annual average air temperature is rising:

- The annual average surface air temperature in Ireland has increased by approximately 0.9°C over the last 120 years, with a rise in temperatures being observed in all seasons.
- An increase in the number of warm spell days the last 60 years with very little change in cold spell duration;

Sea level continues to rise:

- Satellite observations indicate that the sea level around Ireland has risen by approximately 2-3mm/year since the early 1990s. Analysis of sea level data from Dublin Bay suggests a rise of approximately 1.7mm/year since 1938 which is consistent with global average rates.

The ocean is becoming more acidic:

- Measurements in the surface waters to the west of Ireland between 1991 and 2013 indicate an increase in ocean acidity which threatens calcifying species such as corals, shellfish and crustaceans.

[1] *Climate Change 2021 'The Physical Science Basis' (Intergovernmental Panel on Climate Change, August 2021)*
[2] *Climate Status Report for Ireland 2020 (Environmental Protection Agency, Marine Institute, Met Éireann, August 2021)*

The ocean is getting warmer:

- The average sea surface temperature at Malin Head over the 10 years between 2009 and 2018 was 0.47°C above the 1981-2010 mean.

There is an increase in river flows across most of the country:

- However, there is evidence in recent years of an increase in potential drought conditions especially in the east.

The area of forests and artificial surfaces has increased:

- Land cover observations since 1990 show increases in the area covered by both artificial surfaces and forests and a decrease in wetland areas which include peatlands. There was an increase of 38% in the volume of trees between 2006 and 2017.

The IPCC's Sixth Assessment Report does not, however, conclude that a climate catastrophe is inevitable, but rather, there remains a *'narrow path'* to determine the future course of climate, mainly by cutting emissions down to net zero. The Proposed Development will contribute to the decarbonisation of the energy sector and reduce harmful emissions. In this regard, it is in compliance with national and international climate change policy and targets.

2.2.1 International Climate Change Policy

United Nations Framework Convention on Climate Change

In 1992, countries joined an international treaty, the United Nations Framework Convention on Climate Change (UNFCCC), as a framework for international efforts to combat the challenge posed by climate change. The UNFCCC seeks to limit average global temperature increases and the resulting climate change. In addition, the UNFCCC seeks to cope with impacts that are already inevitable. It recognises that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The framework set no binding limits on greenhouse gas emissions for individual countries and contains no enforcement mechanisms. Instead, the framework outlines how specific international treaties (called "protocols" or "Agreements") may be negotiated to set binding limits on greenhouse gases.

Kyoto Protocol

The Kyoto Protocol operationalises the UNFCCC by committing industrialised countries and economies in transition to limit and reduce GHG emissions in accordance with agreed individual targets. Ireland is a Party to the Kyoto Protocol, which came into effect in 2005, and as a result of which, emission reduction targets agreed by developed countries are now binding.

In Doha, Qatar, on 8th December 2012, the *"Doha Amendment to the Kyoto Protocol"* was adopted. The amendment includes:

- New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 1st January 2013 to 31st December 2020;
- A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

Under the protocol, countries must meet their targets primarily through national measures, although market-based mechanisms (such as international emissions trading) can also be utilised.

COP21 Paris Agreement

COP21 was the 21st session of the Conference of the Parties (COP) to the UNFCCC. Every year since 1995 (excluding 2020 due to COVID-19), the COP has gathered the 196 Parties (195 countries and the European Union) that have ratified the Convention in a different country, to evaluate its implementation and negotiate new commitments. COP21 was organised by the United Nations in Paris and held from 30th November to 12th December 2015. COP21 closed with the adoption of the first international climate agreement (concluded by 195 countries and applicable to all). The 12-page text, made up of a preamble and 29 articles, provides for a limitation of the global average temperature rise to well below 2°C above pre-industrial levels and **to limit the increase to 1.5°C**. It is flexible and takes into account the needs and capacities of each country. The IPCC's 6th Assessment Report (2021) further collaborates this need to limit any increase in global average temperature to 1.5°C, stating that (underlined for emphasis),

> *"Humanity has emitted 2,560 billion equivalent tons of CO_2 since 1750, and we only have a budget of 500 more if we want to limit warming to 1.5°C.*
>
> *By following a trajectory of very low GHG emissions (SSP1-1.9), the threshold of 1.5°C will be reached in the short term, between 2021 and 2040, before being very slightly exceeded (1.6°C anticipated over the period 2041-2060) then respected in the long term (1.4°C anticipated over the period 2081-2100).*
>
> *Everything is not lost, but we must pursue the Paris Agreement's most ambitious goal of limiting warming to 1.5°C."*

An article published by the IPCC on the 6th October 2018 titled '*Global Warming of 1.5°C*', notes the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways; in the context of mitigation pathways, strengthening of the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. This special report is part of an invitation contained in the Decision of the 21st Conference of Parties of the United Nations Framework Convention on Climate Change to adopt the Paris Agreement and provides an update on the impact of climate change if emissions are not reduced.

COP25 Madrid

COP25, the 25th session of the COP, was held between the 2nd and 13th of December 2019 in Madrid. The conference was characterised by repeated warnings from civil society (NGOs and corporates) on emerging evidence and scientific consensus on climate change risk. Specifically, it was noted that there are only c. '*10 years left*' before the opportunity of limiting global warming to 1.5°C is no longer feasible. As such, the only remaining approach to limiting rising global temperatures is a '*7.6% reduction of global GHG emissions every year between 2020 and 2030, and to reach net zero emissions by 2050'*. However, consensus was not achieved between States on finalising the operating rules of the Paris Agreement and to ensure that it became operational by 2020. Three issues which emerged between States from the COP25 are summarised below:

- There was no uniform consensus between States to raise countries' climate ambitions, e.g. to make increased commitments in light of growing climate change data. Some States were opposed to imposing any obligation on countries to submit enhanced pledges by the following year, arguing it should be each country's own decision. All states were required to submit a review of their commitments for COP26 in 2020. At the current level of climate targets, within a decade, the objective of the Paris Agreement will no longer be achievable;

- There was no agreement on finalising Article 6 of the Paris Agreement, the foundations for international cooperation to combat climate change. The aim was to establish the rules for new international mechanisms for financing and transferring GHG emission reductions; and
- There was no agreement on financing (Green Climate Fund); specifically, relating to both loss and damage caused by climate change.

Despite the lack of consensus on the above challenges, the COP25 did achieve more limited success with regard to the introduction of the "*San Jose Principles for High Ambition and Integrity of International Carbon Markets*", which sets out the framework on which a robust carbon market should be built. These principles include, but are not limited to:

- Ensures environmental integrity and enables the highest possible mitigation ambition;
- Delivers an overall mitigation in global emissions, moving beyond zero-sum offsetting approaches to help accelerate the reduction of global greenhouse gas emissions;
- Prohibits the use of pre-2020 units, Kyoto units and allowances, and any underlying reductions toward Paris Agreement and other international goals; and
- Ensures that double counting is avoided and that all uses of markets toward international climate goals are subject to corresponding adjustments.

These principles were supported by 23 EU, including Ireland, and Latin American countries, 5 no. pacific islands and 2 no. countries in the Caribbean.

COP26 Glasgow

COP26 took place in Glasgow, Scotland between the 31st October and 12th November 2021. The summit was centred around the fact that "*climate change is the greatest risk facing us all.*" The UK, as hosts for the summit, have developed a ten-point plan to deliver a green industrial revolution, seeking to lead the world in tackling and adapting to climate change.

The key items COP26 seeks to achieve are:

- Secure global net zero by mid-century and keep 1.5 degrees within reach
- Adapt to protect communities and natural habitats
- Mobilise finance
- Work together to deliver

All world leaders at the summit confirmed the need to urgently address the gaps in ambition and work together to achieve climate action.

The summit highlighted that the Paris Agreement is working, with leaders outlining national targets and efforts to further reduce emissions. There was a clear commitment to working together to achieve climate aims, with significant announcements including:

- *"Over 40 leaders joined the Breakthrough Agenda, a 10-year plan to work together to create green jobs and growth globally, making clean technologies and solutions the most affordable, accessible and attractive option before 2030 – beginning with power, road transport, steel, hydrogen and agriculture.*
- *Over 120 countries covering more than 90% of the world's forests endorsed the Glasgow Leaders' Declaration on Forests & Land Use committing to work collectively to halt and reverse forest loss and land degradation by 2030, backed by the biggest ever commitment of public funds for forest conservation and a global roadmap to make 75% of forest commodity supply chains sustainable.*
- *A Just Energy Transition Partnership was announced to support South Africa's decarbonisation efforts; a powerful example of collaboration between an emerging economy and international partners.*

- *The launch of the Global Methane Pledge saw over 100 countries committing collectively to reduce global methane emissions by 30% by 2030."*

COP27 Egypt

COP27 took place in Sharm el-Sheikh from the 6th of November 2022 to the 20th of November 2022. COP 27 centred around three major topics:

- Closing the emissions gap to keep 1.5°C alive
- Loss and Damage
- Climate Finance

COP27 officially ended on the 18th of November, but due to the nature of negotiations an outcome text and the final press conference was not held until November 20th. The first outcomes of the negotiations of the COP27 agenda were seen in the first draft document. A consolidated final document followed and while it removed much of the vague wording of the draft, it also removed some critical key points, particularly in relation to the strengthening of actions required by developed nations. The most significant outcomes from COP27 are outlined below:

- **Phase down/out language:** In Glasgow the previous year, the final agreement was delayed due to the stance of China and India, among others, who were not comfortable with the 'phase out' of coal wording in the draft text. This led to the watering down of this commitment to a 'phase down' of coal use. The hope was that COP27 would work to include further language on coal and fossil fuel reduction efforts. However, the wider commitment to phase out all fossil fuels, led by India, and backed by the US and the EU, was taken out and can be marked as the biggest disappointment of COP27.
- **1.5°C Pathway:** The 1.5°C warming limit has been retained and reassurances have been made that there is no room for backsliding. It gives the key political signals that the phase down of all fossil fuels is happening. There has been the setting of a workplan for 2023 to help articulate the nature and components of a global collective goal on adaptation and resilience and how it can be formatted in a way to take into account the Global Stocktake.
- **Climate Finance & Loss and Damage:** There has been the launch of an initiative by the V20 and G7 known as the Global Shield Against Climate Risk (GSACR). The intention of this initiative has been framed almost as an insurance policy backed by the World Bank to prepare and protect those most vulnerable to climate change disasters. The initiative seeks to reform the current climate finance model currently operating in the form of loans, typically with high interest rates and repayment requirements. The beginnings of a framework to compensate for the unequal distribution of harm that has been caused by climate change and the unequal contributions of emissions has also been put in place.

COP 28 – United Arab Emirates

The 28th session of the COP to the UN Framework Convention on Climate Change, was held in Dubai from 30 November to 13 December 2023. The main objective of COP was to assess the progress made by all parties on the implementation of the 2015 Paris Agreement through the concluding phase of the 'global stocktake', which began after COP26 in 2021.

The outcomes from COP 28 are as follows:

- **Loss and Damage:** Initiated at COP27, the fund for the loss and damage to developing countries due to climate change was established. Unlike other forms of climate finance, there is no firm obligation for developed countries to pay into the

fund. The loss-and-damage fund being launched was marked as a substantial outcome had been achieved during the COP28 opening session.

- **Fossil Fuel Phase-Out & Increasement of Renewable Energy Capacity:** Another result of the COP28 was the adoption of a fossil fuel phase-out agreement which commits parties to the transition away from the fossil fuels in energy systems. The agreement calls for a tripling of renewable energy capacity globally by 2030. This was the first time that the COP explicitly addressed the need to end the use of fossil fuels.
- **Adaptation Framework:** An important decision to come out of COP 28 was a "framework" that is meant to guide nations in their efforts to protect their people and ecosystems from climate change. The 'global goal on adaptation' was first established by the Paris Agreement in 2015 but received little attention up until COP26. Developing countries pushed for financial adaptation targets to be introduced, however, ultimately no quantifiable financial targets were included in the final text.

European Green Deal – European Climate Law (2021)

The European Green Deal, initially introduced by the European Commission in December 2019, sets out the 'blueprint' for a transformational change of the 27-country bloc from a high- to a low-carbon economy, without reducing prosperity and while improving people's quality of life, through cleaner air and water, better health and a thriving natural world. The Green Deal is intended to work through a framework of regulation and legislation setting clear overarching targets, e.g. a **bloc-wide goal of net zero carbon emissions by 2050 and a 55% cut in emissions by 2030 (compared with 1990 levels**). This is a substantial increase compared to the existing target, upwards from the previous target of at least 40% (2030 Climate & Energy Framework), and furthermore, these targets demonstrate the ambition necessary to keep the global temperature increase to well below 2°C and pursue efforts to keep it to 1.5°C as per the Paris Agreement. With regard to the energy sector, the Green Deal focuses on 3 no. key principles for the clean energy transition, which will help reduce greenhouse gas emissions and enhance the quality of life for citizens:

1. Ensuring a secure and affordable EU energy supply;
2. Developing a fully integrated, interconnected and digitalised EU energy market; and
3. Prioritising energy efficiency, improving the energy performance of our buildings and developing a power sector based largely on renewable sources (e.g. the Proposed Development).

The Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('*European Climate Law*') writes into law the objectives set out above in the European Green Deal for Europe's economy and society to become climate-neutral by 2050. Climate neutrality by 2050 means achieving net zero greenhouse gas emissions for EU countries as a whole, mainly by cutting emissions, investing in green technologies and protecting the natural environment. The Climate Law includes:

- A legal objective for the Union to reach climate neutrality by 2050;
- An ambitious 2030 climate target of at least 55% reduction of net emissions of greenhouse gases as compared to 1990, with clarity on the contribution of emission reductions and removals;
- A process for setting a 2040 climate target, taking into account an indicative greenhouse gas budget for 2030-2050 to be published by the Commission;
- A commitment to negative emissions after 2050;
- The establishment of European Scientific Advisory Board on Climate Change, that will provide independent scientific advice;
- Stronger provisions on adaptation to climate change; and
- Strong coherence across Union policies with the climate neutrality objective.

The law aims to ensure that all EU policies contribute to this goal and that all sectors of the economy and society play their part. All 27 no. EU Member States have committed to turning the EU into the first climate neutral continent by 2050. One third of the 1.8 trillion-euro investments from the Next Generation EU Recovery Plan, and the EU's seven-year budget, will finance the European Green Deal. On 14th July 2021, the European Commission adopted a set of proposals[3] to make the EU's climate, energy, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels.

Achieving these emission reductions in the next decade which is crucial to Europe becoming the world's first climate-neutral continent by 2050 would clearly be assisted by the Proposed Development.

2.2.1.2 Project Compliance with International Climate Policy

From the review of the relevant policy documents, it is considered that the Proposed Wind Farm of 9 no. turbines will aid in reducing reliance on fossil fuels for electricity generation. This will help to achieve the United Nations Framework Convention on Climate Change goals of limiting global temperatures as a result of climate change and the goals of the Kyoto Protocol and the several Conference of Parties agreements as outlined above. By making a just transition to more renewable forms of electricity generation, the level of carbon emissions will drop as our reliance on non-renewable forms of energy lessen.

The Proposed Development is also considered to be in line with the European Green Deal which also aims to reduce carbon emissions and achieve net zero carbon emissions by 2050. These goals will not be met if projects, such as the one proposed, are not implemented. The construction of this development would also aid in ensuring energy security within the EU which is a target of the European Green Deal. As wind is an indigenous and abundant resource, countries can tap into their own wind potential, reducing the vulnerability to price fluctuations and geopolitical risks associated with fossil fuel imports. The BESS would improve energy efficiency by reducing the losses associated with energy transmission and distribution. Stored energy can be used locally, reducing the need for long - distance power transmission.

2.2.2 National Climate Policy

Programme for Government – Our Shared Future (April 2021)

The Programme for Government- Our Shared Future (updated in April 2021) places specific emphasis on climate change, stating that the next ten years are a critical period in addressing the climate crisis, and therefore, a deliberate and swift approach to reducing more than half of Ireland's carbon emissions over the course of the decade (2020-2030) must be implemented. The programme states that the government are committed to reducing greenhouse gas emissions by an average 7% per annum over the next decade in a push to achieve a net zero emissions by the year 2050.

With regard to energy generation, the Programme notes that the government is committed to the rapid decarbonisation of the energy sector. The Programme states the government's ongoing support and commitment to take "*the necessary action to deliver at least 70% renewable electricity by 2030.*" This target has been updated by subsequent Climate Action Plans.

The Climate Action and Low Carbon Development (Amendment) Act (2021)

The Climate Action and Low Carbon Development (Amendment) Act 2021, which was signed into law on the 23rd July 2021, legally binds Ireland to achieve net-Zero emissions no later than 2050, and to a

[3] *'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality (July 2021)*

51% reduction in emissions by the end of this decade. The Act provides the framework for Ireland to meet its international and EU climate commitments and to become a leader in addressing climate change. As indicated by the premise of the legislation, the reduction of emissions is a key proponent of the Climate Action and Low Carbon Development (Amendment) Act 2021 and incorporates the following key provisions:

- Embeds the process of setting binding and ambitious emissions-reductions targets in law;
- Provides for a national climate objective, which commits to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy;
- Provides that the first two five-year carbon budgets proposed by the Climate Change Advisory Council should equate to a total reduction of 51% over the period to 2030, relative to a baseline of 2018;
- The role of the Climate Change Advisory Council has been strengthened;
- The government must adopt carbon budgets that are consistent with the Paris agreement and other international obligations;
- Actions for each sector will be detailed in the Climate Action Plan which must be updated annually; and
- Local Authorities must prepare individual Climate Action Plans which will include both mitigation and adaptation measures and will be updated every five years.

Local Authorities must prepare individual Climate Action Plans which will include both mitigation and adaptation measures and will be updated every five years. Under Section 15 of the Climate Act, public bodies are obliged to, in so far as practical, perform their functions in a manner consistent with the latest Climate Action Plan, the National Energy & Climate Plan 2021 – 2030 and other national climate mitigation and adaptation plans. Clare County Council, as a public body, with consenting functions must comply with this obligation in determining the subject application.

The Proposed Development represents a significant opportunity for this site to be a nationally important wind energy generator, contributing to the 51% reduction in emissions being sought, which is as outlined above a legally binding requirement. The Proposed Development is therefore considered compliant with the relevant policies and objectives set out at both the European (e.g. European Green Deal) and National tiers of governance in this regard.

Carbon Budgets

The first national carbon budget programme proposed by the Climate Change Advisory Council, approved by Government and adopted by both Houses of the Oireachtas in April 2022 comprises three successive 5-year carbon budgets[4]. The total emissions allowed under each budget are shown in Table 2-1 below.

Table 2-1 Proposed Carbon Budgets of the Climate Change Advisory Council

	2021 – 2025 Carbon Budget 1	2026 – 2030 Carbon Budget 2	2031 – 2035 Provisional Carbon Budget 3
	All Gases		
Carbon Budget (Mt CO_2eq)	295	200	151

[4] *Climate Change Advisory Council Carbon Budget Technical Report (October 2021)* https://www.gov.ie/en/publication/9af1b-carbon-budgets/

	2021 – 2025 Carbon Budget 1	2026 – 2030 Carbon Budget 2	2031 – 2035 Provisional Carbon Budget 3
Annual Average Percentage Change in Emissions	-4.8%	-8.3%	-3.5%
The figures are consistent with emissions in 2018 of 68.3 Mt CO_2eq reducing to 33.5 Mt CO_2eq in 2030, thus allowing compliance with the 51% emissions reduction target by 2030.			

Section 6C of the Climate Act provides that the Minister shall prepare, within the limits of the carbon budget, the Sectoral Emissions Ceilings. These ceilings set out the maximum amount of greenhouse gas emissions that are permitted in each sector. The Government approved Sectoral Emissions Ceilings on 28 July 2022. The electricity sector is allocated a sectoral ceiling of 40 Mt CO_2 eq for the first budget (2021-2025) and a sectoral ceiling of 20 Mt CO_2 eq for the second budget period (2026-2030). In 2022, the electricity sector emissions were 10.1 Mt CO_2 eq[5].

Climate Action Plan 2023

The Climate Action Plan 2023 ('CAP23') was published in December 2022 by the Department of the Environment, Climate and Communications. This outlines the actions required to 2035 and beyond to meet Ireland's commitment to becoming carbon neutral by 2050. CAP23 sets out a roadmap to deliver on Irelands climate ambition and is aligned 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. A target aims for a reduction in emissions of 51% over the period 2018 to 2030 and in doing so, prevent / mitigate the potentially devastating consequences of climate change on Ireland's environment, society, economic and natural resources.

The CAP23 states that to do so, Ireland must harness the untapped indigenous renewable resources, and has a target of achieving 80% of energy being produced from renewable sources by 2030 (unchanged from the previous Climate Action Plan, 2022) with a target of 9GW of that being produced by onshore wind. Measures set out in CAP23 to achieve these targets include to 'accelerate and increase the deployment of renewable energy to replace fossil fuels' (Section 12.1.4 CAP23). It is clear from the message and ambition of CAP23 that the drive to deploy renewable energy projects such as the Proposed Development in Ireland are critical to achieving the aims and objectives of CAP23 including the 9GW of onshore wind energy by 2030 and carbon neutrality by 2050.

> *"Achieving these ambitions will require a coordinated effort across Ireland and every economic sector will be involved. It requires no less than a national transformation over the coming years in how we work, travel, heat out homes, source our energy and use our land".*
>
> *"Decarbonisation of the electricity sector is, as noted in CAP23, key to the decarbonisation of other sectors who will depend on electrification including transport, heating and industry. The increase in portion of renewable electricity of 80% by 2023 will come in part from a targeted 9GW of onshore wind. The plan notes: "Achieving further emissions reductions between now and 2030 requires a major step up in how we accelerate and increase the deployment of renewable energy to replace fossil fuels, deliver a flexible system to support renewables, and manage electricity demand ".*

Chapter 12 of CAP 23 sets out the state of play, targets and actions for the decarbonisation of the Electricity sector. Carbon emissions from electricity have fallen by 45% between 2005 and 2020, falling by 19% between 2005-2012 and by 33% between 2012 and 2020. This trend is largely due to the

[5] *Climate Change Advisory Council Annual Review 2023 (July 2023) https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR-2023-postfinal.pdf*

availability of renewable energy generated electricity (a sixfold increase between 2005 and 2020) and an associated reduction in the use of carbon heavy fuels such as peat and coal.

Due to the scale of the challenge, and the recognition of central role of the electricity sector in achieving sector wide targets, the electricity sector has been allocated the smallest carbon budget and will require the steepest carbon emissions decline of all sectors – namely a reduction in carbon emission by -75% relative to 2018 baseline. Carbon budgets 1 and 2 allow for 30.02 $MtCO_2eq$ from the electricity sector up to 2025 and 20 $MtCO_2eq$. from 2026-2030. This means an average of 8 $MtCO_2eq$. per annum. Emissions for the period 2021 were 9.98 $MtCO_2eq$., which is in exceedance of 8 $MtCO_2eq$., which means that to keep on track, electricity will now have to achieve annual emissions of c. 7.5 $MtCO_2eq$. from 2022 to 2025.

The measures set out for the electricity sector include *inter alia*:

- Reduce annual CO_2eq. emissions from the sector to 3 $MtCO_2eq$ by 2031 (75% reduction compared to 2018);
- Accelerate and increase the deployment of renewable energy to replace fossil fuels;
- Accelerate the delivery of onshore wind, offshore wind and solar through a competitive framework to reach 80% of electricity demand from renewable energy by 2030;
- Target 6GW of onshore wind and up to 5 GW of solar by 2025;
- Target 9 GW onshore wind, 8 GW Solar and at least 5 GW of offshore wind by 2030;
- Align the relevant constituent elements of the planning and permitting system to support accelerated renewable energy development, supported by national policy and associated methodologies to inform regional and local planning policies, noting that Development Plans are obliged to set out objectives to facilitate energy infrastructure;

Having regard to the targets and measures set out above, it is clear that there is strong policy support for the provision of additional renewable energy generators, such as the Proposed Development.

Climate Action Plan 2024

The Climate Action Plan 2024 ('CAP 24') builds on CAP 23 by refining and updating the status of the actions required to deliver the decarbonisation required under the carbon budgets and sectoral emissions ceilings. The renewable electricity generation targets are unchanged from the CAP 23 (9GW of onshore wind & 80% renewable electricity share).

CAP 24 includes the latest trends in the electricity sector:

- In 2022, renewable generation accounted for 38.6% of electricity, an increase from 35%
- in 2021.
- Electricity accounted for 14.4% of Ireland's greenhouse gas (GHG) emissions in 2022.
- To meet the first carbon budget the electricity sector requires a decarbonisation rate of 17.3% per annum in the period 2023-2025. For context, the decarbonisation rate between 2018 and 2022 was 1.4% per annum.

CAP 24 acknowledges the urgency and importance of the decarbonising the electricity sector. The plan states:

> *"Given that the programme of large-scale offshore wind deployment is expected to be realised towards end decade, deployment rates for onshore renewables will need to increase to match demand growth to ensure we keep electricity emissions within range of the carbon budgets. This requires a major upscaling and accelerating in current deployment of renewables, particularly onshore wind."*

The scale of the challenge is apparent when quantified:

> *"As an example, the historical average deployment of onshore wind installed capacity connected between 2008 and 2020 inclusive was ~280 MW per annum from 19 projects (with an annual maximum of 612 MW). To achieve the necessary emissions abatement, an approximately eight times increase of renewable energy deployment to 2.3 GW annually would be needed between 2024 and 2030."*

CAP 24 identifies the alignment of local and national policy as critical to accelerate renewable energy rollout.

> *"greater alignment between local plans and renewable energy targets at national and regional level to support investment in and delivery of onshore wind and solar renewable energy is also critical".*

Having regard to the targets and measures set out above, it is clear that there is strong policy support for the provision of additional renewable energy generators, such as the Proposed Development.

2.2.2.2 Project Compliance with National Climate Policy

The Proposed Development, consisting of 9 no. wind turbines and associated infrastructure aligns with the national climate policy objectives. The Proposed Development will make a significant contribution to achieving the CAP 24 target of 9GW of onshore wind energy by the year 2030. Furthermore, the Proposed Development will aid Ireland in adhering to, or limiting the exceedance of, the country's carbon budgets. Currently, the electricity sector is rapidly approaching the designated sectoral ceiling of 20 Mt CO_2 eq for the first carbon budget period from 2020 to 2025. The national renewable energy targets and the carbon budgets are integral to the government's response to the climate crisis.

2.3 Renewable Energy Policy and Targets

2.3.1 EU Renewable Energy Policy

Renewable Energy Directive

The Renewable Energy Directive is the EU legal framework for the development of renewable energy across all sectors of the EU economy, supporting clean energy cooperation across EU countries. Since the introduction of the Renewable Energy Directive (RED) in 2009, it has undergone several revisions since then and these revisions. Since its adoption in 2009, the share of renewable energy sources in energy consumption has increased from 12.5% in 2010 to 23% in 2022[6]. Of the 27 EU member states the lowest proportions of renewables were recorded in Ireland (13.1%). Crucially, the Renewable Energy Directive sets the overall target for renewable energy in the EU.

RED I - 2009

Renewable Energy Directive 2009 (RED I - the original RED) (2009/28/EC), adopted in 2009, set binding targets for EU member states to achieve a 20% share of renewable energy in final energy consumption by 2020. It established a framework for national renewable energy action plans, sustainability criteria for biofuels and bioliquids, and a system of guarantees of origin for renewable energy.

[6] *https://ec.europa.eu/eurostat/en/web/products-eurostat-news/w/ddn-20231222-2*

RED II – 2018

RED II, the first major amendment to the RED, (2018/2001/EU) entered into force in December 2018, as part of the Clean Energy for all Europeans package. In RED II, the overall EU target for Renewable Energy Sources consumption by 2030 was raised to 32%.

RED III – 2023

In November 2023, a revision of the Renewable Energy Directive[7] (RED III), came into force. RED III increases the EU wide renewable energy target from 32% set under the previous revision of the directive to at 42.5%, with an ambition to reach 45% by 2030. The increase was proposed under the publication of REPowerEU plan in May 2022. The Directive also introduces specific targets for Member States in the industry, transport, and building (district heating and cooling) sectors.

Under RED III, EU member states must identify areas for the acceleration of renewables where projects will undergo a simplified and fast-track procedure. The deployment of renewables will also be of "*overriding public interest*" in order to limit the number of legal challenges on new renewable energy installations. These measures came in response to REPowerEU which found that permitting is the biggest bottleneck for deploying wind at scale, with approximately 80 GW of wind power capacity stuck in permitting procedures across Europe.

There is an 18-month period to transpose most of the directive's provisions into national law, with a shorter deadline of July 2024 for some of the provisions related to permitting for renewables, in particular Article 16(f) which establishes the legal presumption that the construction and operation of renewable energy development and storage assets are in the "*overriding public interest and serving public health and safety when balancing legal interest in individual cases for the purposes of Article 6(4) and Article 16(1), point (c), of Directive 92/43/EEC [the 'Habitats Directive'], Article 4(7) of Directive 2000/60/EC [the 'Water Framework Directive'] and Article 9(1), point (a), of Directive 2009/147/EC.[the 'Birds Directive']*".

REPowerEU

The European Commission has proposed an outline of a plan to make Europe independent from Russian fossil fuels including oil and gas, due to the high and volatile energy prices, and security of supply concerns following Russia's unprecedented military attack on Ukraine. At the time of publication, the EU imported 90% of its gas consumption, with Russia providing around 45% of those inputs. Russia also accounted for around 25% of oil and 45% of coal imports. Phasing out dependence on fossil fuels can be done well before 2030, increasing the resilience of the EU-wide energy system based on two pillars:

1. *Diversifying gas supplies, via higher Liquefied Natural Gas (LNG) and pipeline imports of biomethane and renewable hydrogen production and imports from non-Russian suppliers.*
2. *Reducing faster the use of fossil fuels by boosting energy efficiency, increasing renewables and addressing infrastructure bottlenecks.*

With full implementation of the measures in REPowerEU plan, at least 155 bcm of fossil gas use could be removed, which is equivalent to the volume imported from Russia in 2021. Nearly two thirds of that reduction can be achieved within a year. A part of this plan includes *'Speeding up renewables permitting to minimise the time for roll-out of renewable projects and grid infrastructure improvements'*. This will make the sector more efficient and reach the set goals faster.

[7] *Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast)*

As such, it is submitted that the Proposed Development is strongly supported by EU energy policy. Many of the measures outlined in REPowerEU have been incorporated into national Policy through the National Energy Security Framework, which was published by the Government in April 2022, and discussed in further detail in Section 2.3.2.

Regulation 2022/2577

In recognition of the worsening energy crises arising from Russia's war against Ukraine, the Council of the European Union adopted Regulation (EU) 2022/2577 on 22 December 2022, '*Laying down a framework to accelerate the deployment of renewable energy*.' This regulation, which has immediate and direct effect in Member States, applies to "*all permit-granting processes that have a starting date within the period of its application*" and includes a number of tangible measures aimed at streamlining the permit-granting process and facilitating the accelerated deployment of renewable energy. The period of application of the Regulation is the 30 December 2022 to 29 June 2024 with a provision for this to be reviewed and extended. The period of application of the Regulation was subsequently extended to the 30 June 2025 and therefore applies to the present application and EIA.

> *'A fast deployment of renewable energy sources can help to mitigate the effects of the current energy crisis, by forming a defence against Russia's actions. Renewable energy can significantly contribute to counter Russia's weaponisation of energy by strengthening the Union's security of supply, reducing volatility in the market and lowering energy prices.*[8]

Central to the regulation is the presumption that renewable energy development must be considered to be in the overriding public interest when addressing competing interests under the Habitats Directive (92/43/EEC), Birds Directive (2009/147/EEC) and the Water Framework Directive (2006/60/EC) and that renewable energy projects should be given priority when balancing legal interests in a given case – Article 3:

1. *'The planning, construction and operation of plants and installations for the production of energy from renewable sources, and their connection to the grid, the related grid itself and storage assets shall be presumed as being in the overriding public interest and serving public health and safety when balancing legal interests in the individual case, for the purposes of Article 6(4) and Article 16(1)(c) of Council Directive 92/43/EEC, Article 4(7) of Directive 2000/60/EC of the European Parliament and of the Council and Article 9(1)(a) of Directive 2009/147/EC of the European Parliament and of the Council....'*
2. *'Member States shall ensure, at least for projects which are recognised as being of overriding public interest, that in the planning and permit-granting process, the construction and operation of plants and installations for the production of energy from renewable sources and the related grid infrastructure development are given priority when balancing legal interests in the individual case.... (emphasis added)'*

The Regulation was introduced as a temporary, emergency measure and included provision for the EU Commission to review the application of, and continued need for, the measures included in the Regulation. The Commission completed its review of the Regulation and furnished its report to the Council on the 28 November 2023. In its report the Commission recommended the prolongation of the validity of certain measures in the Regulation, including Article 3(2), and by Regulation 2024/223 of the 22 December 2023 the Council of the European Union, Regulation 2022/2577 was extended and amended, with Article 3 applying to the all permit-granting processes commenced up to the 30 June 2025.

The importance, continued need and effectiveness of Article 3(2) of Regulation 2022/2577 in aiding the accelerated deployment of renewable energy is explained in Recital 14 of Regulation 2024/223:

[8] *Council Regulation (EU) 2022/2577, at Recital 1*

'...Article 3(2) of Regulation (EU) 2022/2577 requires priority to be given to projects that are recognised as being of overriding public interest whenever the balancing of legal interests is required in individual cases and where those projects introduce additional compensation requirements for species protection... The first sentence of Article 3(2) of Regulation (EU) 2022/2577 has the potential, in the current urgent and still unstable energy situation on the energy market which the Union is facing, to further accelerate renewable energy projects since it requires Member States to promote those renewable energy projects by giving them priority when dealing with different conflicting interests beyond environmental matters in the context of Member States' planning and the permit-granting process. The Commission's report demonstrated the value of the first sentence of Article 3(2) of Regulation (EU) 2022/2577 which recognises the relative importance of renewable energy deployment in the current difficult energy context beyond the specific objectives of the derogations foreseen in the Directives referred to in Article 3(1) of Regulation (EU) 2022/2577. Given the particularly severe situation in the supply of energy which the Union is currently facing, it is appropriate to prolong the application of Article 3(2) of Regulation (EU) 2022/2577 in order to appropriately recognise the crucial role played by renewable energy plants to fight climate change and pollution, reduce energy prices, decrease the Union's dependence on fossil fuels and to ensure the Union's security of supply in the context of the balancing of legal interests carried out by permit-granting authorities or national courts. At the same time, it is also appropriate to keep the environmental safeguard that, for projects recognised as being of overriding public interest, appropriate species conservation measures, underpinned by sufficient financial resources, are adopted. (emphasis added)'.

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

Energy Roadmap 2050

The Energy Roadmap 2050 was published by the European Commission in 2011 and analyses the transition of the contemporary energy system in ways that would be compatible with the greenhouse gas reductions targets as set out in the Renewable Energy Directive (Directive 2009/28/EC) while also increasing competitiveness and security of supply. To achieve these targets and objectives, the Roadmap states that significant investments will need to be made in new low-carbon technologies and renewable energy, e.g. wind energy infrastructure, energy efficiency and grid infrastructure. Five main routes are identified to achieving a more sustainable, competitive and secure energy system in 2050:

- High Energy Efficiency;
- Diversified Supply Technologies;
- High Renewable Energy Sources;
- Nuclear energy; and
- Carbon capture and storage.

The analysis found that decarbonising the energy system is technically and economically feasible. The Roadmap notes that all scenarios show the biggest share of energy supply technologies in 2050 comes from renewables. In this regard, it should be noted that the Climate Change Advisory Council states within their 2020 Annual Review (September 2020) that, "*while the share of renewable electricity generation, particularly wind, is increasing [in Ireland], the [overall] pace of decarbonisation of the [electricity generation] sector needs to accelerate*", as it is not compatible with a low-carbon transition to 2050. As such, a major prerequisite for a more sustainable and secure energy system is a higher share of renewable energy up to and beyond 2030 to 2050. Each of the scenarios assumes in the analysis that

increasing the share of renewable energy and using energy more efficiently are crucial, irrespective of the particular energy mix chosen.

2.3.1.2 Project Compliance with EU Policy

The Proposed Development is considered to be fully in accordance with and supported by the above-mentioned EU Policy. The Proposed Development is in line with the targets outlined in the 2030 Climate and Energy Framework. An EU wide binding target of 27% renewable energy by 2030 and a target of at least 27% energy efficiency by 2030 are both targets that can be achieved through the delivery of the Proposed Development and other similar projects. The target of increasing the binding target of the EU's energy mix from 32% to a minimum of 42.5% by 2030 is also considered to be a target that would be achievable by the construction of schemes such as the Proposed Development. Similarly, the Energy Roadmap 2050 envisions scenarios aimed at realizing the EU's climate action and energy objectives. It highlights that across all scenarios, the primary source of energy supply technologies in 2050 is projected to be renewables. Therefore, it is submitted that the Proposed Development is in line with the EU Energy Roadmap.

The RePowerEU plan, aims at increasing the energy security within the EU and increasing the share of renewable energy onto the EU electricity grid. A part of this plan includes *'Speeding up renewables permitting to minimise the time for roll-out of renewable projects and grid infrastructure improvements'*. This will make the sector more efficient and reach the set goals faster. Therefore, it is considered that the Proposed Development is strongly supported by EU energy policy. Furthermore, Regulation 2022/2577 introduced significant measures to facilitate the acceleration of the deployment of renewable energy, including an obligation on member states to prioritise the roll of renewable energy projects when balancing competing legal interests. This Regulation applies to the present planning applications and EIA and further justifies the granting of consent for the Proposed Development.

2.3.2 National Renewable Energy Policy

White Paper on 'Ireland's Transition to a Low Carbon Energy Future' 2015 – 2030

On 19th June 2020, the updated Green Paper on Energy Policy in Ireland was published. The Paper which was originally published on 14th May 2014 marked the start of a public consultation process on the future of Ireland's energy policy over the medium to long-term. The Department of Communications, Climate Action & Environment acknowledged that energy is an integral part of Ireland's economic and social landscape and that *"a secure, sustainable and competitive energy sector is central to Ireland's ability to attract and retain Foreign Direct Investment and sustain Irish enterprise. The three key pillars of energy policy are to focus on security, sustainability and competitiveness"*.

Following on from an extensive consultation process, a Government White Paper entitled 'Ireland's Transition to a Low Carbon Energy Future 2015-2030' was published in December 2015 by the (then) Department of Communications, Energy and Natural Resources ("DCENR"). This Paper provides a complete energy update and a framework to guide policy up to 2030. The Paper builds upon the White Paper published in 2007 and takes into account the changes that have taken place in the energy sector since 2007.

The policy framework was developed to guide policy and actions that the Irish Government intends to take in the energy sector up to 2030 and also reaching out to 2050 to ensure a low carbon future that maintains Ireland's competitiveness and ensures a supply of affordable energy. The Energy Vision 2050, as established in the White Paper, describes a *'radical transformation'* of Ireland's energy system which will result in GHG emissions from the energy sector reducing by between 80% and 95%, compared to 1990 levels. The paper advises that a range of policy measures will be employed to achieve this vision with emphasis on the generation of electricity from renewable sources, which there are plentiful indigenous supplies and increasing the use of electricity and bio energy to heat homes and fuel transport.

In this White Paper, the DCENR acknowledges that onshore wind is one of the cheapest forms of renewable energy in Ireland, stating that:

> *"Onshore wind continues to be the main contributor (18.2% of total generation and 81% of RES-E in 2014). It 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."*

The Green Paper on Energy Policy in Ireland 2015-2030 was updated and republished in 2020 and updated again in January 2021. The updated Paper outlines that:

> *'The 2020 target of 40% RES-E is likely to require a total of 3,500-4,000 MW of onshore renewables generation capacity, compared to the 2,500 MW available at end December 2014, of which wind generation accounted for 2,200MW.* ***To achieve our target, the average rate of build of onshore wind generation will need to increase to up to 260 MW per year. The current rate of build is about 170 MW per year****.'*

Furthermore, the White Paper outlines that Solar technology is rapidly becoming cost competitive for electricity, not only compared with other renewables but also compared with conventional forms of generation, it recognises that:

> *"The deployment of solar in Ireland has the potential to increase energy security, contribute to our renewable energy targets, and support economic growth and jobs."*

National Energy Security Framework

The National Energy Security Framework (DECC, April 2022) highlights clearly the impacts the Russian invasion of Ukraine and the resulting war has had on Europe's energy system. The resulting decision by the European Union to phase out the import of Russian gas, oil and coal (REPowerEU) has brought to the fore the importance of security of supply and how energy policy is designed for long-term resilience. It takes account of the need to decarbonise society and economy, to reduce Ireland's emissions by 51% over the decade to 2030 and reach net zero emissions by 2050. According to the SEAI's Energy in Ireland (2021) report, oil accounts for 45% of Ireland's primary energy requirement making it one of the highest rates of oil dependency in the EU. The International Energy Agency, of which Ireland is a member country, includes a 10-point plan to cut oil use which calls for an acceleration in the deployment of wind and solar projects. Ireland's response per the Framework is set out over three themes:

- Theme 1 – managing the impact on consumers and businesses
- Theme 2 – ensuring security of energy supply in the near-term
- Theme 3 – reducing our dependency on imported fossil fuels in the context of the phasing out of Russian energy imports across the EU

In relation to theme 3, the Framework highlights that replacing fossil fuels with renewables, including wind energy, will be a focus area of work. The Framework calls for "*Supportive policies across Government and State agencies"* which *"can reduce barriers and fast track permitting for renewable energy generation projects. Similarly, renewable energy developers need to match this through taking a leadership role in delivering high quality applications to relevant consenting authorities, meeting project milestones on time and minimising delays."* There are a number of 'Responses' set out in the Framework aimed at reducing reliance on imported fossil fuels and increasing indigenous renewable energy generation, including Response 25 which seeks the alignment of all elements of the planning system to support accelerated renewable energy development.

Having regard to the above, it is clear that the provision of additional renewable energy generation and its supporting infrastructure, such as the Proposed Development, is vital in helping to secure the State's energy supplies and reduce reliance on imported fossil fuels.

Energy Security in Ireland to 2030 – Energy Security Package

Published in November 2023, the energy security package titled '*Energy Security in Ireland to 2030*' builds on the policies set out in the NESF. The energy security package is based on the recognition of the following fact:

> *"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 into Europe's energy systems."*

The energy security package includes a range of measures to implement this approach by the prioritisation of the following:

1. *Reduced and Responsive Demand.*
2. *Renewables-Led System.*
3. *More Resilient Systems.*
4. *Robust Risk Governance.*

Independent research undertaken as part of the package, McCarthy Report[9], , provides an analysis of developments in the electricity sector in Ireland. The McCarthy Report makes the following observation in relation to the consenting process:

> *"The problem of delays encountered by major infrastructure projects, including in the electricity system, due to planning and environmental consent issues was evident. They had been commented upon by the International Energy Agency in its 2019 review of Ireland which named planning delays as the principal challenge to delivery of policy for the sector."*

A key finding from the technical analysis conducted as part of the energy security package is the interdependence of energy security on two essential pillars: 'harnessing our indigenous renewable energy resources at speed and at scale and the rapid electrification of energy demand'. As such, the energy security package provides additional measures to supplement the existing measures introduced under previously published government policy documents. Those additional measures most relevant to the Proposed Development are as follows:

> *"Action 10: To implement Planning and Consenting System Reforms and provide greater certainty to the sector."*

The energy security package aims to ensure that the planning system is fully aligned and resourced to fully support accelerated renewable energy development. It also aims to ensure renewable energy projects are prioritised in line with the recast Renewable Energy Directive and RePowerEU.

The Proposed Development will significantly support the government's objectives in ensuring the State's energy security. The Proposed Development serves as a domestic renewable energy generator capable of providing clean electricity to the national electricity grid, contributing to a renewables-led system.

2.3.2.2 Project Compliance with the National Renewable Energy Policy

The National Energy Security Framework outlines several steps to accelerate Ireland's shift to renewable energy initiatives. It's evident that the Proposed Development aligns with this framework by increasing the proportion of renewable energy on the national grid, thus expediting Ireland's transition to a low-carbon energy future.

[9] *https://www.gov.ie/pdf/?file=https://assets.gov.ie/276441/eb496e01-5c01-4594-af09-74342b4ac971.pdf#page=null*

2.3.3 Climate and Renewable Energy Target Progress

At a European level, the latest data shows that, as of 2022, 23% of energy came from renewable energy sources[10]. This represents an increase of 1.1% compared to 2021 levels. While progress is being made to increase the share of renewable energy, it is clear that all EU member states need to intensify their efforts to collectively comply with the target of 42.5% set in the latest revision of the renewable energy directive.

Of the 27 EU member states, Ireland has the lowest proportion of renewable energy at 13.1%. It is evident that Ireland is not performing well when compared against our European counterparts and that urgent action is required to increase the overall share of renewable energy in our gross final energy consumption. When it comes to the share of renewable energy in electricity, Ireland does perform better generating 36.8% in 2022, but still below the EU average of 41.1%[11].

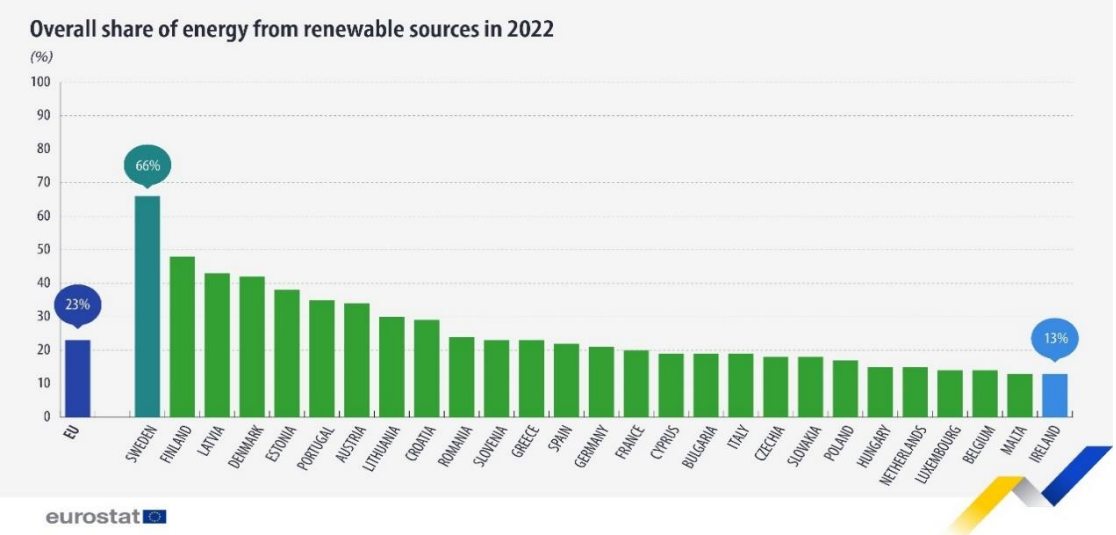

Figure 2-1 Overall share of energy from renewable sources (source: Eurostat)

Ireland's Greenhouse Gas Emissions Projections 2022 – 2040 (June 2023)

The Environmental Protection Agency (EPA) publish Ireland's Greenhouse Gas Emission Projections and at the time of writing, the most recent report, '*Ireland's Greenhouse Gas Emissions Projections 2022–2040*' was published in June 2023. The report includes an assessment of Ireland's progress towards achieving its emission reduction targets out to 2030 set under the EU ESD and Effort Sharing Regulation (ESR).

The EPA has produced two scenarios in preparing these greenhouse gas emissions projections: a "With Existing Measures" (WEM) scenario and a "With Additional Measures" (WAM) scenario. These scenarios forecast Irelands greenhouse gas emissions in different ways. The WEM scenario assumes that no additional policies and measures, beyond those already in place by the end of 2021. This is the cut off point for which the latest national greenhouse gas emission inventory data is available, known as the 'base year' for projections. The WAM scenario has a higher level of ambition and includes government policies and measures to reduce emissions such as those in Ireland's Climate Action Plan 2023.

The EPA Emission Projections Update notes the following key trends:

[10] https://ec.europa.eu/eurostat/en/web/products-eurostat-news/w/ddn-20231222-2
[11] https://ec.europa.eu/eurostat/databrowser/view/nrg_ind_ren__custom_9264705/default/bar?lang=en

- Ireland is not on track to meet the 51 per cent emissions reduction target (by 2030 compared to 2018) based on these projections which include most 2023 Climate Action Plan measures.
- Emissions from the Energy Industries sector is projected to decrease by between 50 and 60 per cent over the period 2021 to 2030. Renewable energy generation is projected to range from 68 to over 80 per cent of electricity generation as a result of projected further and rapid expansion in wind energy and other renewables.
- Sectoral emissions ceilings for 2025 and 2030 are projected to be exceeded in almost all cases, including Agriculture, Electricity, Industry, and Transport.
- The first two carbon budgets (2021-2030), which aim to support achievement of the 51 per cent emissions reduction goal, are projected to be exceeded by a significant margin of between 24 and 34 per cent.

As decarbonising electricity generation will have a significant positive contribution in achieving Ireland's emissions it is clear that additional renewable energy production such as that of the Proposed Development must be encouraged and supported if carbon saving targets are to be met.

National Energy Projections (November 2023)

The National Energy Projections report was published by the SEAI in November 2023 and sets outs the most recent updates to Ireland's progress towards its binding European and National renewable energy targets. Based on the EPA projections outlined above published in June 2023, the report presents the findings of the 2023 national energy and climate modelling cycle.

The existing EU wide target set in REDII is 32% RES by 2030. Irelands current national EU binding target for 2030 RES is 34.1%. There are also interim targets for 2022, 2025 and 2027, as shown in Table 2-2 below. Since the publication of the *National Energy Projections* report, the European Parliament and Council have introduced REDIII, increasing this target to a minimum of 42.5% RES by 2030. It is likely that Ireland's national target will increase in line with the increase at EU level.

Table 2-2 Overall renewable energy share projections under EPA scenarios

Current REDII target for overall renewable energy share (RES) for Ireland		WEM	WAM - CAP 21	WAM – CAP23
2025	Projected overall RES	19%	20%	22%
	REDII overall RES target for Ireland	24%	24%	24%
	Gap to target	-4%	-3%	-2%
2027	Projected overall RES	22%	26%	27%
	REDII overall RES target for Ireland	28%	28%	28%
	Gap to target	-5%	-2%	-1%
2030	Projected overall RES	31%	40%	45%
	REDII overall RES target for Ireland	34%	34%	34%
	Gap to target	-3%	6%	11%

In the interim years of 2025 and 2027, the WAM-CAP23 scenario indicates a failure to meet the interim overall RES targets. This is attributed to the revised profile of renewable generation capacity additions, which now assumes that more of the planned capacity will arrive later in the decade. If Ireland's target aligns with the increased EU-level goal under RED III, it would widen the gap to the target during the interim years.

The decarbonisation of the electricity generation is critical considering the need to electrify other sectors such as heating and transport in order to achieve the sectoral decarbonisation targets. By 2030, renewable energy sources are anticipated to dominate electricity generation, particularly experiencing a significant surge later in the decade attributed to the integration of substantial offshore wind projects. In the CAP23 scenario, there is an expedited deployment of onshore renewable generation capacity in the

earlier years of the decade compared to the CAP21 scenario. However, both scenarios aim to achieve a similar overall percentage of electricity derived from renewable sources (RES-E) by the year 2030.

Figure 4: Fuel use for electricity generation

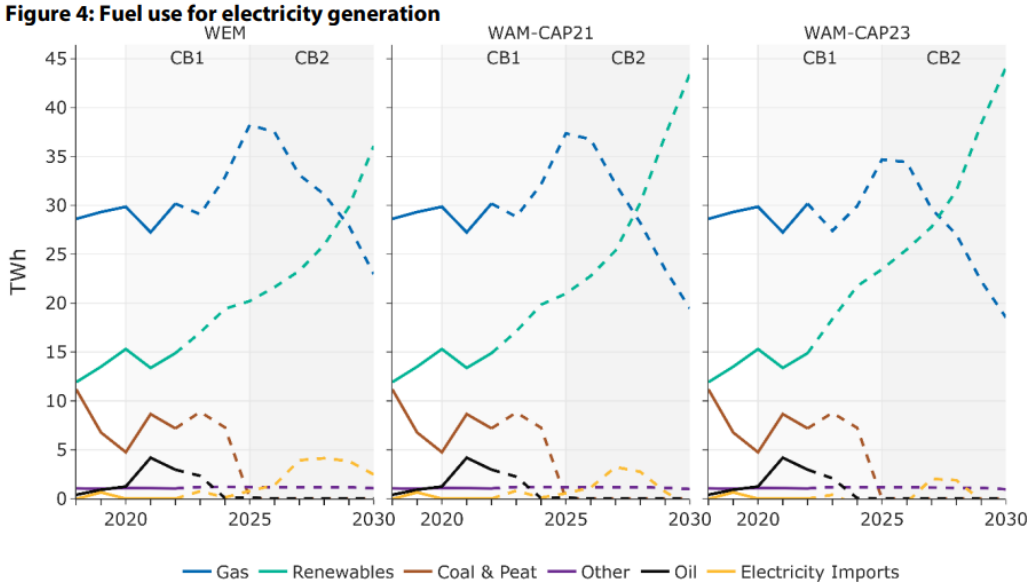

Figure 2-2 Electricity generation by fuel source (source: SEAI)

The report projects greenhouse gas emissions under the WEM and WAM scenarios. It is projected that in both the WEM and WAM scenarios, the carbon budget for the electricity sector will be exceeded. This is largely due to the cumulative nature of the carbon budgets, where exceedances in the early years results in steeper emissions reductions in the latter years to compensate. In the WEM scenario, emissions are projected to reach the first sectoral ceiling in 2024. This results in a significant overspend of 7.4 $MtCO_2eq$ (19%) within the final 2 years of the first carbon budget period 2020–2025. This would have a knock-on effect on the second carbon budget period 2025-2030, which would likely be unattainable from the outset.

Under the WAM CAP23 scenario, cumulative emissions reach the first sectoral ceiling in the 2024, leading to an overspend of the first budget period by 5.6 $MtCO_2eq$ 2024-2026. Despite the improvement on the WEM scenario, the WAM CAP23 scenario exceeds the second budget period (2025 – 2030) ceiling by 2027. By the end of the decade, the WAM CAP23 scenario projects an exceedance of 13.8 $MtCO_2eq$ (23%).

It is clear from the projections outlined above that unprecedented action is required as soon as possible. Unless carbon emissions are reduced sharply before 2025, it will be impossible to stay within the second budgeting period as required to by law under the Climate Act.

The Climate Change Advisory Council Annual Review 2023

The Climate Change Advisory Council (CCAC) concluded within their '*2023 Annual Review'* that at the current rate of policy implementation, *"Ireland will not meet the targets set in the first and second carbon budget periods unless urgent action is taken immediately and emissions begin to fall much more rapidly"*.

In relation to the rollout of renewable energy, the CCAC note that the current rate of renewable energy connections to the national grid needs to increase substantially in order to meet CAP23 targets. The CCAC state:

> *"The current rate of connecting renewables will need to more than double to meet NCAP 2023 targets for 9GW of onshore wind and 8GW of solar power connected to the electricity*

system by 2030, which for context equates to a further approximately 1,500MW of onshore renewables connected to the electricity system on average each year."

The CCAC reiterates the importance of EU Regulation 2022/2577 and its objective to ensure "*the planning, construction and operation of plants and installations for the production of renewable energy is presumed to be in the overriding public interest".* The CCAC acknowledge the quantity of planning applications necessary to achieve the CAP 24 target of 9GW of onshore wind energy and advise that further resources are put in place to ensure that the consenting authorities are well resourced to assess these applications.

Ireland's Climate Change Assessment (January 2024)

In January 2024, the EPA published Irelands Climate Change Assessment (ICCA). This assessment provides a comprehensive overview and breakdown of the state of knowledge around key aspects of climate change with a focus on Ireland. The ICCA report is presented in four volumes.

- Volume 1: Climate Science – Ireland in a Changing World
- Volume 2: Achieving Climate Neutrality in 2050
- Volume 3: Being Prepared for Irelands Future
- Volume 3: Realising the Benefits of Transition and Transformation

The ICCA Synthesis Report states that having peaked in 2001, Irelands greenhouse gas emissions have reduced in all sectors except agriculture. However, Ireland currently emits more greenhouse gases per person than the EU average. The report goes on to state that there has been an identified gap in policy that indicates that Ireland will not meet its statutory greenhouse gas emission targets. Achieving net zero carbon dioxide emissions by 2050 requires significant and unprecedented changes to Ireland's energy system. Policies tailored to suit different stages of technology development are critical for achieving a net zero energy system. Established technologies, such as wind energy, solar photovoltaics and bioenergy will be key in meeting short-term emission reduction targets (i.e. 2030), whereas offshore wind infrastructure is expected to be the backbone of future energy systems. This can only be achieved with appropriate support schemes, regulation and investments for synergistic growth of offshore wind and other renewable technologies.

There are well-established 'no-regret options' that need to happen now, which can get Ireland most of the way to net zero carbon dioxide emissions. Beyond that, there are 'future energy choices' relating to the scale and magnitude of technologies that will assist in achieving Ireland statutory climate targets. Ireland's no-regret options are demand reduction (e.g. through energy efficiency and reduced consumption), electrification (e.g. electric vehicles and heat pumps), deployment of market-ready renewables (e.g. wind energy and solar photovoltaics) and low-carbon heating options (e.g. district heating); Irelands future choices include hydrogen, carbon capture and storage, nuclear energy and electro-fuels. Renewable energy can increasingly provide our future energy needs but will need to be complemented with carbon dioxide removals to achieve a net zero energy system in hard-to-abate sectors.'

The Climate Change Advisory Council Electricity Sectoral Review 2024

The Climate Advisory Council published its annual review in May 2024, it outlines detailed observations and recommendations for the Electricity sector in Ireland. This review emphasises the urgent need for Ireland to accelerate its transition to renewable energy to meet its 2030 electricity capacity targes and adhere to sectoral emissions ceilings.

The Climate Change Advisory Council states:

> *"Ireland needs to reduce and ultimately prevent emissions of greenhouse gases. to stay within the agreed carbon budget, the Electricity sector needs to achieve the largest reduction in sectoral emissions of all sectors: a 75% decrease by 2030 compared with 2018."*

Key observations in relation to Renewable Electricity are outlined below:

a) Renewables accounted for 41% of electricity demand in 2023, up from 39% in 2022.
b) By the end of 2023, the total renewable grid capacity in Ireland was 5.7 GW, with the majority (4.7 GW) from onshore wind turbine installations.
c) In 2023, only onshore wind (0.2 GW) generation was connected. This is significantly below the annual average increase of 1.6 GW of onshore renewables required to meet 2030 capacity targets.
d) In 2023, 0.5 GW of wind projects received planning permission; however, no onshore wind projects were awarded permission before September. Appeals and judicial reviews, including for all of An Bord Pleanála's approved projects, continue to delay the development of projects.

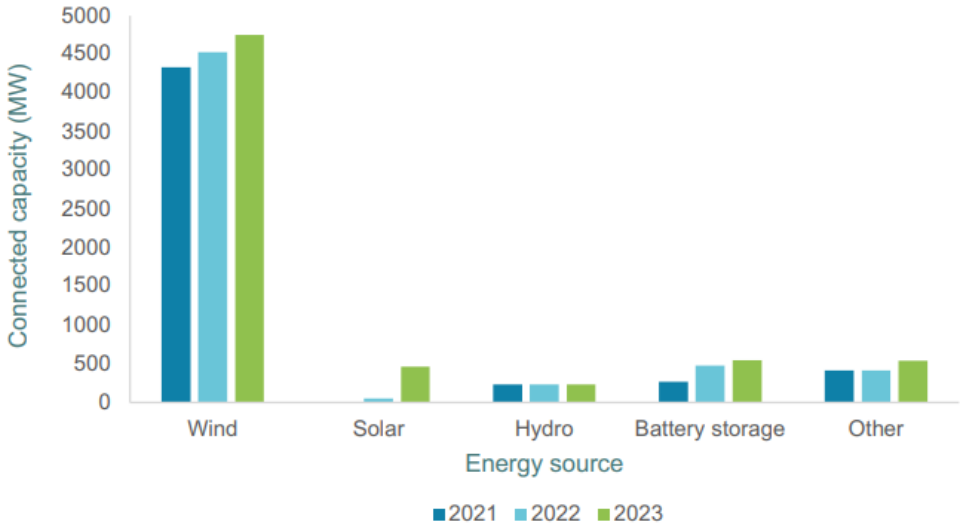

Figure 2-3 Renewable energy capacity and storage connected to the grid in Ireland, 2021-2023

2.4 Planning Policy Context

This section of the EIAR provides the strategic planning context of the Proposed Development. As is examined below, the Proposed Development is in line with national, regional and local policies, frameworks, guidelines and plans. This section has been broken down to the following sections:

- National Policy Context
- Regional Policy Context
- Local Policy Context
- Other Relevant Material Considerations

As a renewable energy project, the Proposed Development is consistent with the overall national policy objectives to increase penetration and deployment of renewable energy resources and has been designed in the context of the relevant wind energy and other guidelines. The specific compliance with the National, Regional and Local/County Development Plan provisions is dealt with in detail in the sections below.

2.4.1 National Policy

National Planning Framework: Project Ireland 2040

The National Planning Framework (NPF), published in February of 2018, forms the top tier of the national planning policy structure which establishes the policy context for the Regional Spatial and Economic Strategies (RSES) and local level development plans. In an effort to move away from developer led system to one informed by the needs and requirements of society up to 2040, a number of objectives and policies have been put in place in the NPF in order for the country to grow and develop in a sustainable manner.

- Developing a new region-focused strategy for managing growth;
- Linking this to a new 10-year investment plan, the Project Ireland 2040 National Development Plan 2018-2027;
- Using state lands for certain strategic purposes;
- Supporting this with strengthened, more environmentally focused planning at local level; and
- Backing the framework up in law with an Independent Office of the Planning Regulator.

The NPF notes that the population of Ireland is projected to increase by approximately 1 million people by 2040 which will result in a population of roughly 5.7 million. This population growth will place further demand on both the built and natural environment. In order to strengthen and facilitate more environmentally focused planning at the local level, the NPF states that future planning and development will need to:

> *"Tackle Ireland's higher than average carbon-intensity per capita and enable a national transition to a competitive low carbon, climate resilient and environmentally sustainable economy by 2050, through harnessing our country's prodigious renewable energy potential."*

A key focus throughout the NPF is the fostering of a transition toward a low carbon, climate-resilient society. In this regard, one of the stated key elements of the NPF is an Ireland which has a secure and sustainable renewable energy supply and facilitates the ability to diversify and adapt to new energy technologies. Key features identified in the NPF to facilitate the transition towards a low carbon energy future include:

- A shift from predominantly fossil fuels to predominantly renewable energy sources.
- Increasing efficiency and upgrades to appliances, buildings and systems.
- Decisions around development and deployment of new technologies relating to areas such as wind, smart grids, electric vehicles, buildings, ocean energy and bio energy.
- Legal and regulatory frameworks to meet demands and challenges in transitioning to a low carbon society.

Relevant to the Proposed Development, the **National Strategic Outcome 8** (*Transition to Sustainable Energy)*, notes that in creating Ireland's future energy landscape, new energy systems and transmission grids will be necessary to enable a more distributed energy generation which connects established and emerging energy sources, i.e. renewables, to major sources of demand. The successful transition to a low-carbon power system will depend on the pillars of 1) *Sustainability*, 2) *Security of supply* and 3) *Competitiveness*. A common theme underpinning these pillars is the need for a fit-for-purpose transmission and distribution energy network. Specifically, the NPF states that reinforcement of the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres, e.g. the functional purpose of the extant grid connection.

Also relevant to the Proposed Development, Ireland's national energy policy under **Objective 55** aims to:

> '*Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050*'.

An overarching objective of the NPF is to foster a transition toward a low carbon, climate-resilient society, which reflects the policy ethos established at the European level of governance (e.g. climate change and renewable energy targets – Section 2.1). In this regard, one of the key themes of the NPF is the realisation of an Ireland which has a secure and sustainable renewable energy supply and the ability to diversify and adapt to new energy technologies. The NPF references the National Climate Policy Position which established the fundamental objective of achieving transition to a competitive, low carbon, climate resilient and environmentally sustainable economy by 2050. The NPF emphasises that rural areas have a strong role to play in securing a sustainable renewable energy supply for the country and acknowledges that *"rural areas have significantly contributed to the energy needs of the country and continue to do so"*. In this regard, the NPF states:

> *"In meeting the challenge of transitioning to a low carbon economy, the location of future national renewable energy generation will, for the most part, need to be accommodated on large tracts of land that are located in a rural setting, while also continuing to protect the integrity of the environment"*.

The NPF acknowledges that greenhouse gas emissions from the energy sector must be reduced by at least 80% by 2050 when compared to 1990 levels while ensuring a secure supply of energy exists. New energy systems and the maintenance / safeguarding of existing grid assets will be necessary for a more distributed, renewables focused energy system required to harness Ireland's considerable indigenous energy sources and "connect the richest sources of that energy to the major sources of demand".

In regard to the above, it is clear that the provision of new renewable energy generation such as the Proposed Development is in line with the aims and objectives of the NPF which seeks to transition the State to a low carbon economy.

Draft Revised National Planning Framework

The Government has agreed to the publication of a draft revision of the National Planning Framework (NPF) for public consultation. The Draft Revision of the NPF focuses on the need to update the Framework published in 2018 in order to appropriately reflect changes to Government policy that have taken place since the initial publication six years ago, such as climate transition.

There is an increased emphasis on the importance of the renewable energy development and infrastructure needed to support this. Chapter 9 acknowledges that the *"accelerated delivery of the additional renewable energy generation is... essential for Ireland to meet its climate targets."* A number of new or amended National Policy Objectives (NPOs) have been proposed in order to achieve this objective.

Table 9.1 sets regional renewable energy capacity allocations for wind and solar energy. This was one of the key actions for 2024 under the Climate Action Plan 2024. The Southern Region, in which the Proposed Development is located, is allocated an additional 978MW of wind energy. Under NPO 75, the Southern Regional Assembly will be required to plan how and where to deliver the required capacity by identifying capacity allocations for each Local Authority in its area. Clare County Council will then be required to plan for the delivery of the energy capacity target that they have been allocated, under NPO 76.

The introduction of renewable energy targets represents a more active and prescriptive approach to land use planning for renewable energy development. If adopted in the final version of the Revised

NPF, it will align the national target of 9GW of onshore wind energy with the policies and objectives of Local Authorities.

National Development Plan 2021- 2030

The National Development Plan 2021 – 2030 (NDP) was published on the 4th October 2021 and sets out the major public investment projects identified by Government which are to play a significant role in addressing the opportunities and challenges faced by Ireland over the coming years such as Covid-19, Brexit, housing, health, population growth, and most relevant to the Proposed Development, climate change. Reflecting on the recent publication of the IPCC's 6th Assessment Report, the NDP notes that the Irish Government is fully committed to 'playing its part' to ensure that the worst climate change damage can be avoided, e.g. significant reductions in CO_2 and other greenhouse gas emissions as assisted by the achievement of both European and National renewable energy targets. Specifically, the NDP states that,

> *"The next 10 years are critical if we are to address the climate crisis and ensure a safe and bright future for the planet, and all of us on it.*
>
> *The investment priorities included in this chapter [Ch. 13] must be delivered to meet the targets set out in the current and future Climate Action Plans, and to achieve our climate objectives. The investment priorities represent a decisive shift towards the achievement of a decarbonised society, demonstrating the Government's unequivocal commitment to securing a carbon neutral future."*

Notwithstanding this, the NDP acknowledges that it is not its role to set out a specific blueprint for the achievement of Ireland's climate targets; but as noted above, facilitate capital investment allocations for the climate and environmental strategic priorities.

One of the NDP's strategic climate priorities in the need for low-carbon, resilient electricity systems; specifically, the plan commits to **increasing the share of renewable electricity up to 80% by 2030.** This is characterised by the NDP as an '*unprecedented commitment to the decarbonisation of electricity supplies*' which, is certainly ambitious and an explicit driver for the deployment of new renewable generators e.g. the Proposed Development and the safeguarding / maintenance of existing assets, it is noted that the reliability of electricity supplies will also be strengthened through investment in the electricity transmission and distribution grid. The focus of investment in regulated network infrastructure is to contribute to a long-term, sustainable and competitive energy future for Ireland.

2.4.1.2 Project Compliance with National Policy

With regard to the above, it is considered that the Proposed Development is in line with and supported by the National Planning Framework and the National Development Plan.

The National Planning Framework projects a population increase of 1 million people by 2040 and therefore recognises the strain and demand this will put on Irelands energy system. In order to ensure Ireland delivers on our renewable energy and carbon emission reduction targets, the NPF recognises the need for increased renewable energy onto the national grid. This shift from fossil fuels is dependent upon schemes such as the one proposed to generate renewable energy. Given the projected population increase, it is considered that if the share of renewable energy onto the grid is not increased, Ireland will fail to reach the National and International targets on emission reductions. The addition of 7 no. wind turbines, with an estimated electricity generation capacity of approximately 46.2MW, will significantly contribute to Ireland's national targets and support the country in meeting its renewable energy and carbon emission reduction goals at the EU level. The Proposed Development is directly supported by National Planning Objective 21, 54, and 55.

The National Development Plan 2021 - 2030 is clear in its priority to reach a low-carbon, climate resilient society over the lifetime of the plan. The Proposed Development, if permitted, will provide clean, renewable electricity to the national grid, furthering development objectives of the NDP, namely the target to increase the share of renewable electricity up to 80% by 2030.

2.4.2 Regional Policy

Southern Regional Assembly Regional Spatial & Economic Strategy

The Southern Regional Assembly ('SRA') was established in 2015, the Regional Spatial and Economic Strategy ('RSES') for the Southern Region (Carlow, Clare, Cork, Kerry, Kilkenny, Limerick, Tipperary, Waterford and Wexford) came into effect on 31st January 2020. The RSES provides a long-term, strategic development framework for the future physical, economic and social development of the Southern Region. The RSES seeks to achieve balanced regional development and full implementation of Project Ireland 2040 – the National Planning Framework.

Adopted on the 31st of January 2020, the principal statutory purpose of the RSES is to support the implementation of the Project Ireland 2040 National Planning Framework ('NPF') / National Development Plan ('NDP') and the economic policies and objectives of the Government. The RSES aims to build on the region's strengths and potential to become a more prosperous, sustainable, climate resilient and attractive region for the benefit of all its people. up to 2040 and beyond.

The RSES notes that planning policy and objectives must incorporate resilience and adaptability to ensure that the Region are agile and responsive to change. At present, Irish per capita GHG emissions are among the highest in Europe and Government has identified '*Climate Change as the most important long-term challenge facing Ireland' with a stated commitment to 'the transformation required to achieve a low carbon resilient future'*. Transition to a low carbon energy future will require a wide range of policy responses across industry and public sectors, including electricity.

To achieve national and EU targets in the context of the electricity sector, the RSES notes that further investment is required to develop alternative renewable energy sources with greater interconnection to energy resources. This key enabling action is captured under **Strategic Aim 8** which sets out the need to "*safeguard and enhance the environment through sustainable development, prioritising action on climate change across the region, driving the transition to a low carbon and climate resilient society.*" Both the NPF and RSES emphasise, however, that the planning process is well placed to implement and integrate climate change objectives.

- **RPO 9 (Holistic Approach to Delivering Infrastructure)**: *It is an objective to ensure investment and delivery of comprehensive infrastructure packages to meet growth targets that prioritise the delivery of compact growth and sustainable mobility as per the NPF objectives including for renewable energy and climate change adaption.*

The RSES sets out a number of Regional Policy Objectives ('RPOs') designed to facilitate greater integration of renewables into the National Grid. The RSES notes that there is significant potential to use renewable energy across the Region to achieve climate change emission reduction targets. As such, the RSES supports renewable industries such as the Proposed Development.

- **RPO 87 (Low Carbon Energy Future)**: *The RSES is committed to the implementation of the Government's policy under Ireland's Transition to a Low Carbon Energy Future 2015-30 and Climate Action Plan 2019. It is an objective to promote change across business, public and residential sectors to achieve reduced GHG emissions in accordance with current and future national targets, improve energy efficiency and increase the use of renewable energy sources across the key sectors of electricity supply, heating, transport and agriculture.*

- **RPO 95 (Sustainable Renewable Energy Generation)**: *It is an objective to support implementation of the National Renewable Energy Action Plan (NREAP), and the Offshore Renewable Energy Plan and the implementation of mitigation measures outlined in their respective SEA and AA and leverage the Region as a leader and innovator in sustainable renewable energy generation.*

- **RPO 96 (Integrating Renewable Energy Sources)**: *It is an objective to support the sustainable development, maintenance and upgrading of electricity and gas network grid infrastructure to integrate renewable energy sources and ensure our national and regional energy system remains safe, secure and ready to meet increased demand as the regional economy grows.*

- **RPO 99 (Renewable Wind Energy)**: *It is an objective to support the sustainable development of renewable wind energy (on shore and offshore) at appropriate locations and related grid infrastructure in the Region in compliance with national Wind Energy Guidelines.*

- **RPO 100 (Indigenous Renewable Energy Production and Grid Injection)**: *It is an objective to support the integration of indigenous renewable energy production and grid injection.*

The RSES also acknowledges the need to develop a strong grid to support the integration of renewable energy on to the national electricity grid. The RSES sets out a number of infrastructural RPOs, relevant to the Proposed Development which indicate that the Region is open to, and ready to invest in, renewable energy generation:

2.4.2.2 Project Compliance with Regional Policy

The RSES supports the Southern Region as a Carbon Neutral Energy Region. At present, the RSES notes that the Region has more renewable energy generation than demand which indicates a strategic role for the region's energy assets in national energy generation and transmission with projected increases in population and economic growth, the demand for energy is set to increase in the coming years. It is considered that the provision of the Proposed Development would facilitate this just transition and is particularly in line with the RPO objectives as outlined above. In the region, a noticeable trend has emerged to recognise and take advantage of emerging opportunities related to the shift towards a decarbonised economy, particularly in the realm of renewable energy generation and therefore the Proposed Development is considered to be in line with Regional Policy.

2.4.3 Local Policy

The Site falls across the administrative area of Clare County Council and Limerick City and County Council and therefore, is subject to the planning policies and objectives set out within the Clare County Development Plan 2023-2029 and the Limerick City and County Development Plan 2022-2028.

2.4.3.1 Proposed Wind Farm

2.4.3.1.1 *Clare County Development Plan 2023- 2029*

The Clare County Development Plan 2023 – 2029 (CDP) was formally adopted by Elected Members of Clare County Council on March 9th, 2023. The CDP officially came into effect on April 20th, 2023, 6 weeks later. The CDP provides overall guidance for the proper planning and development of County Clare through the use of supporting policies and objectives.

The CDP recognises its position in supporting the delivery of meaningful action on climate change. Climate action is thus an important strategic objective of the CDP, with aims to achieve decarbonisation and climate resilience as a county. This has been reflected in Chapter 2 - Climate Action, in addition to other climate action and renewable energy related objectives introduced throughout the Plan.

The significance of climate change and the need for continued support / investment within renewable energy generation as part of the county's adaption strategy is captured within the objectives of the CDP's Climate Action Chapter:

- ***Goal II:*** *A county that is resilient to climate change, plans for and adapts to climate change and flood risk, is the national leader in renewable energy generation, facilitates a low carbon future, supports energy efficiency and conservation and enables the decarbonisation of our lifestyles and economy.*

Table 2-3 below sets out the relevant policies and objectives within the CDP which currently support the continued investment in renewable/ wind energy generation in County Clare.

Table 2-3 Renewable Energy Policy – Clare County Development Plan 2023-2029

Policy	Description	Proposed Development Compliance
CDP2.1 Climate Action	It is an objective of Clare County Council: a) *To support the implementation of the National Climate Action Plan 2023 and the National Climate Change Adaptation Framework (and any subsequent versions thereof), and to work with the Regional Climate Action Offices to enable County Clare to transition to a low carbon and climate resilient county;* b) *To adopt sustainable planning strategies through integrating land use and transportation and by facilitating mixed use developments as a means of supporting national targets of climate policy mitigation and adaptation objectives, and reducing our carbon footprint and greenhouse gas emissions; and;* c) *To raise awareness and understanding of the impacts of climate change on both the local economy and communities in the county, and the ways communities can increase their response and grow their resilience to these impacts.*	The Proposed Development is in compliance with CDP2.1 Climate Action as it supports the implementation of the CAP and will generate clean, renewable electricity, which can be integrated into the grid to meet the increasing demand for electricity across various sectors. By supplying sustainable renewable energy, the Proposed Development will reduce the need for non-renewable sources like coal and oil, helping to transition toward cleaner energy usage in the county.

Policy	Description	Proposed Development Compliance
CDP2.2 Climate Change Mitigation, Adaption and resilience	It is an objective of the Clare County Council: a) *To support the implementation of the Clare Climate Change Adaptation Strategy 2019-2024 (and any subsequent versions);* b) *To promote measures that build resilience to climate change to address impact reduction, adaptive capacity, awareness raising, providing for nature-based solutions and emergency planning;* c) *To raise awareness of issues relating to climate change and climate change adaptation during the lifetime of this plan;* d) *To liaise, collaborate and work in partnership with the relevant government approved sectors in relation to initiatives and activities across the county;* e) *To support the Ennis 2040 Spatial and Economic Strategy and its aspiration for Ennis to become Irelands first climate adaptive town; and* f) *To facilitate and support the relevant stakeholders and enterprises in the progression of advancements in climate adaptation solutions and renewable energy generation and technologies.*	The Proposed Development supports the implementation of the Clare *Climate Change Adaptation Strategy 2019-2024* in promoting measures that build resilience to climate change to address impact reduction, adaptive capacity, awareness raising, providing for nature-based solutions and emergency planning. By providing a potential installed capacity range from a minimum of 51.3 MW up to a maximum 64.8 MW, the Proposed Development of 9 no. wind turbines at Knockshanvo, Co. Clare supports renewable energy generation in the County and contributes to meeting the total renewable energy targets for Strategic Areas. The Proposed Development will contribute to the progression of advancements in climate adaptation solutions and renewable energy generation and technologies in Co. Clare.
CDP6.17 Energy Supply	*To contribute to the economic development and enhanced employment opportunities in the County by:* i. *Enabling the development of a self-sustaining, secure, reliable and efficient renewable energy supply and storage for the County in line with CDP Objective 3.3;* ii. *Facilitating the county to become a leader in the production of sustainable and renewable energy for national and international consumption through research, technology development and innovation; and* iii. *Supporting on-land and off-shore renewable energy production by a range of appropriate technologies in line with CDP Objective 3.*	The Proposed Development will contribute to the development of a self-sustaining, secure, reliable and efficient renewable energy supply and storage for the County by contributing positively to the levels of renewable electricity on the national grid. This will aid in ensuring there is adequate capacity for the growing energy needs of the Country.
CDP 6.18 Green Technology	*To support the development of low carbon and green tech businesses and industries throughout the County.*	The Proposed Development will support the growth of low carbon and green technology businesses across the County by enabling renewable energy production, thereby aiding the shift towards a low carbon economy.

Policy	Description	Proposed Development Compliance
CDP8.12 Renewable Energy	*To support the implementation of the National Renewable Energy Action Plan (NREAP), the Clare Wind Energy Strategy and the Clare Renewable Energy Strategy to facilitate the development of renewable energy developments in rural areas to meet national objectives towards achieving a low carbon economy by 2050 subject to the requirement of the RES SEA Environmental Report and the mitigation measures arising from the CDP Appropriate Assessment as contained in Volume 10(a).*	The Proposed Development will support the development of the National Renewable Energy Action Plan (NREAP), the Clare Wind Energy Strategy and the Clare Renewable Energy Strategy though the production of renewable energy thereby aiding the shift towards a low carbon economy.
CDP 11.44 Energy Security	*"It is an objective of the Development Plan: To promote and facilitate the sustainable development, maintenance and upgrading of electricity and gas network grid infrastructure, to integrate renewable energy sources, thereby creating a secure and efficient energy supply and storage system for County Clare which is ready to meet increased demand as the regional economy grows."*	Projects such as the Proposed Development are a critical component in decoupling the county from reliance on fossil fuels. By generating renewable energy, wind farms contribute to achieving the long-term goal of replacing fossil fuels with sustainable energy sources. This aligns with the CDP 11.44 'Energy Security' emphasizing a transition away from traditional non-renewable fuels in the energy sector.

Policy	Description	Proposed Development Compliance
CDP11.47 Renewable Energy	*"It is an objective of the Development Plan:* *a) To encourage and to favourably consider proposals for renewable energy developments, including community owned developments, and ancillary facilities in order to meet National, Regional and County renewable energy targets, and to facilitate a reduction in CO_2 emissions and the promotion of a low carbon economy;* *b) To assess future renewable energy-related development proposals having regard to the Clare Renewable Energy Strategy 2023-2030 in Volume 5 of this plan and associated SEA and AA;* *c) To support the sustainable development of renewable wind energy (on-shore and offshore) at appropriate locations and of its related grid infrastructure in County Clare, in accordance with all relevant policies, guidance and guidelines pertaining to the protection of the environment and protected habitats and species, and to assess proposals having regard to the Clare Wind Energy Strategy in Volume 6 of this plan and the associated SEA and AA, or any subsequent updated adopted Strategy and to national Wind Energy Guidelines;* *d) To prepare a new and updated Wind Energy Strategy for County Clare during the lifetime of this plan, subject to the publication of the update to the Wind Energy Development Guidelines for Planning Authorities 2006;* *e) To strike an appropriate balance between facilitating renewable and wind energy-related development and protecting the residential amenities of neighbouring properties;* *f) To support and facilitate the development of new options and technological advances in relation to renewable energy production and storage, that may emerge over the lifetime of this Plan;* *g) To support the integration of indigenous renewable energy production and grid injection;* *h) To ensure that all proposals for renewable energy developments and ancillary facilities in the County are in full compliance with the requirements of the SEA and Habitats Directives and Objective CDP3.3 of this plan; and* *i) To promote and market the County as a leader of renewable energy provision.*	The Proposed Development will contribute over 50MW to the Clare Wind Energy Strategy for Strategic Areas and for Acceptable in Principle areas (totalling 550MW of renewable wind energy by 2030). Through support of this Proposed Development, Clare County Council will be fulfilling their objective CDP11.47 'Renewable Energy' to *'favourably consider proposals for renewable energy developments, including community owned developments, and ancillary facilities in order to meet National, Regional and County renewable energy targets, and to facilitate a reduction in CO_2 emissions and the promotion of a low carbon economy.'*

Policy	Description	Proposed Development Compliance
CDP 18.3 Development of a Low Carbon Economy	i. *A) To promote County Clare as a Low Carbon County as a means of attracting inward investment to the County and the Mid-West region;* ii. *B) To facilitate measures to establish a low carbon economy and society by 2020;* iii. *C) To facilitate the development of energy sources which will achieve low carbon outputs.*	The Proposed Development will provide more than 50MW of energy, facilitating the transition to a low carbon economy and promoting County Clare as a Low Carbon County to attract investment to both the County and the wider Mid-West region.

2.4.3.1.2 *Clare Renewable Energy Strategy*

As reflected within the key goals of the CDP, Clare County Council wants to ensure that Co. Clare has the necessary land use and strategy framework in place to maximise the harnessing and use of its renewable energy resources and inform and guide the planning process for future renewable energy development. The Clare Renewable Energy Strategy 2023-2029 (RES) was adopted as part of the CDP 2023 – 2029, includes the following vision of the RES:

> *"A County Clare that is the national leader in renewable energy generation which supports energy efficiency and conservation, and which achieves balanced social and economic development throughout the County and assists in achieving national climate change mitigation targets."*

This Vision is underpinned by several strategic aims of which the following are considered to be of particular relevance to the Proposed Development:

a) To support the attainment of and to exceed in County Clare, where possible, the National targets and commitments to renewable energy;

b) To identify/highlight the opportunities for various renewable energy technologies and resources and identify broad areas suitable for their development in full compliance with the requirements of all environmental legislation including the requirements of the Strategic Environmental Assessment Directive, Habitats Directive and Water Framework Directive;

c) To maximise the opportunities for renewable energy development whilst safeguarding the environment and existing residential amenities; and

d) To safeguard, where appropriate, areas with potential for renewable energy projects and to guide renewable energy development to preferred locations.

The RES acknowledges that Co. Clare has the natural resources needed to maximise energy generation by renewable means: geographical location on the Shannon Estuary and its Atlantic coastline, strong wind resource, undulating topography and a significant grid network. These attributes present opportunities for both on-shore and off-shore wind, wave and tidal energy, and pumped freshwater hydro energy storage. The RES notes that "*energy needs in County Clare are expected to rise by 2020...*" which is balanced against a recognition that "*the County has considerable capacity to produce energy from renewable and indigenous resources*". In this regard, **Policy RES 2.1** states that "*it is an objective of Clare County Council to meet the County's energy needs from 100% indigenous renewable energy sources.*"

The RES sets out a sustainable balance of renewable energy resources up to 2023 which ensures that there is no over reliance or over concentration on any single technology. With regard to wind energy, a target of ***550MW*** has been identified. It should be noted, however, that this target is not a 'cap' and will not limit the potential for greater generation of renewable energy if exceeded.

- ***Objective RES 3.1*** *(Renewable Energy Targets): To facilitate the achievement of (or to exceed where possible) the renewable energy targets set out in Table 3.2 by 2030, ensuring that County Clare is the national leader in sustainable renewable energy generation, supporting energy efficiency, security and conservation, achieving balanced social, environmental and economic development throughout the County and assisting in the achievement of Ireland's Green Energy target.*

2.4.3.1.3 Clare Wind Energy Strategy 2023-2029

The Interim Wind Energy Strategy (WES) for County Clare was published in April 2023 and is incorporated into the CDP as Volume 6. The WES has been developed as a planning framework to support the implementation of wind developments in the county.

Within the preface of the WES it states:

> *The Clare Wind Energy Strategy forms part of the Clare County Development Plan 2023-2029. In accordance with the requirements of the Department of Environment, Community and Local Government as set out in Circular PL20-13, the previous "Clare Wind Energy Strategy 2017-2023" has not been reviewed as part of the preparation of this draft plan*
>
> *Circular PL20-13, dated 20th December 2013, in the cyclical review of a Development Plan it is advised that, until the national policy review processes have concluded in relation to the Wind Energy Development Guidelines and the Renewable energy Export Policy and Development Framework, local authorities should defer amending their existing Development Plan policies and should instead operate their existing Development Plan policies and objectives until the completion of these processes and further advice is issued."*

The WES highlights 11 Strategic objectives that outline the overall rationale behind the strategy, with the aim of contributing to national legally binding targets while also capitalising on those opportunities associated with the generation and harnessing of wind energy in a sustainable matter. A key objective being:

> *"To promote economic development through wind energy and other renewables in the County, underpinning the need for energy security, the promotion and establishment of a low carbon economy and the development of green business within the County."*

The WES also includes wind energy planning policy and development management standards to manage wind energy development. Strategic policy objectives for the development of the Wind Energy sector set out within the strategy are detailed in Table 2-4 below:

Table 2-4 Strategic policy objectives for the development of wind energy- Clare Wind Energy Strategy

General Objectives	Description	Proposed Development Compliance
WES One: Development of Renewable Energy Generation	It is the objective of the Council to support, in principle and in appropriate scales and locations, the development of wind energy resources in County Clare. It is an objective of the Council to ensure the security of energy supply by accommodating the development of wind energy resources in appropriate areas and at appropriate scales within the County.	The Proposed Wind Farm turbines are located within an area designated primarily as a *'Strategic Area'* and also partially within an area which is designated as *'Acceptable in Principle'*. Both areas are considered suitable for wind energy development as outlined in the WES. The Proposed Development will support the Council in achieving its objective to

General Objectives	Description	Proposed Development Compliance
		ensure the security of energy supply by accommodating the development of wind energy resources.
WES Two: Development of Low Carbon Economy	County Clare will seek to promote itself as moving towards becoming a low carbon County as a means of attracting inward investment to the County and the wider Mid-West region.	The Proposed Development will support County Clare in towards becoming a low carbon County as it will contribute over 50MW of renewable wind energy generation to County Clare's Wind Energy targets.
WES Three: County Partnership Approach	Clare County Council will seek to promote wind energy in appropriate sites in the County and will work with agencies such as the Clare County Development Board, Clare Enterprise Board, Limerick Clare Energy Agency, Shannon Development, I.D.A and Enterprise Ireland to encourage investment in research and technology associated with wind farms and other renewable energy technology.	Projects such as the Proposed Development support Co. Clare in encouraging investment in research and technology associated with wind farms and other renewable energy technology. By generating renewable energy, wind farms such as the Proposed Development contribute to achieving the long-term goal of replacing fossil fuels with sustainable energy sources.
WES Four: Response to National Policy	The White Paper on Energy has set a target of 40% of electricity to be generated from renewable sources by 2020. In the Mid-West Regional Climate Change Strategy, County Clare is identified as having a potential 600MW energy produced from renewables by 2020. Clare County Council will aim to achieve a minimum target of 550MW from wind energy by the conclusion of this Strategy.	The Proposed Development will contribute over 50MW of renewable wind energy generation to Clare's County Clare's Wind Energy targets.
WES Five: Promotion of Community Involvement	Clare County Council will seek to promote community involvement and require community benefit where possible in Wind farm developments.	Two Community Liaison Officers (CLO) were appointed as the points of contact for the Proposed Development and have been engaging with the local community. The purpose of the CLO's was to introduce the Proposed Development to the local community, engage and establish a line of dialogue with the local community and facilitate one-to-one consultation meetings, or group meetings where requested. Please see Section 2.6 of this chapter for further detail on the Community Consultation process.
WES Six: Infrastructure Development Proposals	Proposals for the development of infrastructure for the production, storage, and distribution of electricity through the harnessing of wind energy will be considered in appropriate sites and locations, subject to relevant policy, legislation and environmental considerations.	The design and layout of the Proposed Development follows the recommendations and guidelines set out in the '*Wind Energy Development Guidelines'* (Department of the Environment, Heritage, and Local Government, 2006), the '*Draft Wind*

General Objectives	Description	Proposed Development Compliance
		Energy Guidelines ', ('WEGs') (Department of the Environment, Heritage and Local Government, 2019), and the '*Best Practice Guidelines for the Irish Wind Energy Industry*' (Irish Wind Energy Association, 2008). The Site has been subject to a comprehensive environmental and ecological appraisal to ensure that the Proposed Development does not result in any significant adverse environmental or ecological impacts. A detailed analysis of site-specific constraints was carried out in order to inform the placement of the proposed infrastructure. These assessments are mainly included within Chapter 6 of this EIAR however ecological and environmental considerations are included throughout each chapter of the EIAR
WES Seven: Natura 2000 Sites	Having regard to the provisions of the Habitats Directive 92/43/EEC, where a proposed development will give rise to significant adverse direct, indirect or secondary impacts on Natura 2000 sites, (either individually or in combination with other plans or projects), permission will only be granted where there is no alternative solution and where there are imperative reasons of overriding public interest in favour of granting permission, including those of a social or economic nature.	The impact of the Proposed Development on designated sites is considered in full in the EIAR and the NIS. Chapter 6 of the EIAR and NIS conclude that the Proposed Development will not give rise to any significant negative impacts on designated sites.

Lands classified under the WES have been developed for wind farm developments based on specific objectives. The Proposed Wind Farm turbines are located within an area designated primarily as a *'Strategic Area'* and also partially located within an area which is designated as *'Acceptable in Principle'* (AIP) as outlined below and in Figure 2-4:

- **WES 8: 'Strategic Areas'**
  These key areas are considered to be eminently suitable for wind farm development and are of strategic importance because of:
  - Good / excellent wind resources;
  - Access to grid;
  - Distance from properties and outside any Natura 2000 sites.

- **WES 9: 'Acceptable in Principle'**
  These areas are considered suitable for wind farm development because of:
  - Sufficient wind speeds,
  - Access to grid network, and established patterns of inquiries.

Strategic areas are considered suitable for wind farm development with good/excellent wind resources, access to grid, distance from properties and location outside designated sites. A target of minimum 400MW from these areas is identified in the WES. AIP areas are also considered suitable for wind farm

development with sufficient wind speeds, access to grid and established patterns of inquiries. A target of a minimum of 150MW from these areas is identified in the WES. However, the Local Authority will assess each application for wind development in line with existing planning policy, objectives, and legislation.

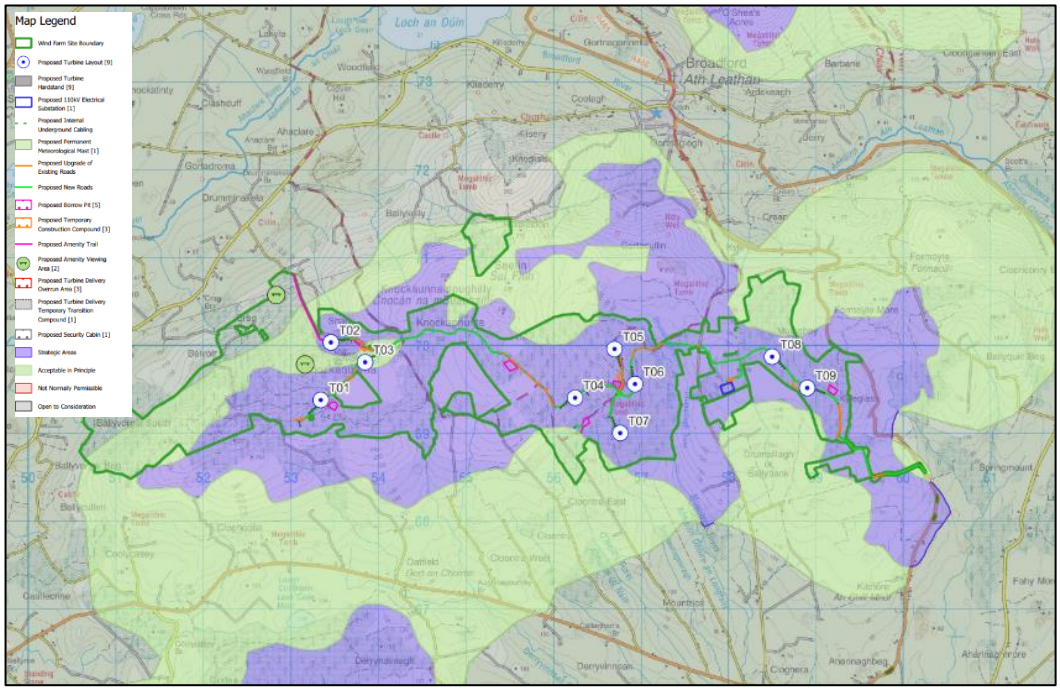

Figure 2-4 Co. Clare Wind Energy Designations

The design and layout of the Proposed Development follows the recommendations and guidelines set out in the '*Wind Energy Development Guidelines'* (Department of the Environment, Heritage, and Local Government, 2006), the '*Draft Wind Energy Guidelines* ', ('WEGs') (Department of the Environment, Heritage and Local Government, 2019), and the '*Best Practice Guidelines for the Irish Wind Energy Industry*' (Irish Wind Energy Association, 2008).

The Proposed Development site layout as submitted as part of this application takes account of all site constraints and the distances to be maintained between turbines and other infrastructure from houses, roads, etc. The layout is based on the results of all site investigations that have been carried out during the EIAR process. As information regarding the site of the Proposed Development was compiled and assessed, the proposed layout has been revised and amended to take account of the physical constraints of the site and the requirement for buffer zones and other areas in which no turbines could be located. The selection of turbine number and layout has also had regard to wind-take, noise and shadow flicker impacts and the separation distance to be maintained between turbines. The EIAR and Wind Farm Site design process was an iterative process, where findings at each stage of the assessment were used to further refine the design, always with the intention of minimising the potential for environmental impacts.

The WES has remained largely unchanged since first published in 2009, in terms of the identified suitable areas and MW targets. The first version of the WES set a 400MW target for wind energy generation from strategic areas, 250MW of which was to be identified as the potential renewable (wind) energy generation for the Sliabh Callan landscape character area (LCA). The WES set a *"working target"* of 550MW *"to enable the County to make the initial steps towards a low carbon economy by 2020",* which was considered to represent *"a realistic target that can be achieved over the lifetime of the WES".* Despite more than ten years passing since the current WES was first prepared and adopted, there has been no increase in the MW targets of the WES of the CDP. The 550MW (County Clare) and 400MW (Strategic Areas) targets remain in place and unchanged since 2009. As detailed in the

preceding sections, the national and international policy context for renewable energy, wind energy and decarbonisation has changed dramatically in the same time period.

To-date, only c.145MW of wind energy projects have been permitted or constructed in the areas designated as Strategic Areas in the WES. The Proposed Development, the vast majority of which is located in such a Strategic Area would further deliver on the on the County's stated targets for Strategic Areas.

Similarly, the WES includes a target of 150 MW of wind energy generation from AIP areas. To-date, only c.81MW of wind energy projects have been permitted or constructed in the areas designated as Acceptable in Principle Areas. The Proposed Development which is partially located (1 of the 10 turbines proposed) within such an area would also further deliver on the County's stated targets for AIP Areas.

The Proposed Development is entirely consistent with the policies and objectives of the WES and CDP in contributing to the achievement of MW targets set out in those policy documents. The WES was first adopted in December 2009 and was considered ambitious at the time. However, the targets and objectives of the current WES have not kept pace with the rapidly evolving national and international policy environment for renewable energy and climate change. As a result, they are now likely to be out of date and will have to be increased further to keep in line with national and international policy.

2.4.3.2 Grid Connection

In relation to electricity, the CDP will facilitate the delivery of a secure and adequate electricity infrastructure to meet the growth in demand and to ensure that an efficient and reliable electricity supply is available to households, business, and industry. The CDP states that CCC will continue to work closely with EirGrid to facilitate the ongoing development of the grid infrastructure in line with national, regional and local requirements.

Specific relevant policies of the CDP in relation to the proposed Grid Connection are included in Table 2-5 below.

Table 2-5 Policy Objectives of the CDP in relation to the proposed Grid Connection.

Policy	Description	Proposed Development Compliance
CDP 11.45	***Objective CDP11.45 (Electricity Networks)*** *a) To facilitate improvements in energy infrastructure and encourage the expansion of the infrastructure within the County;* *b) To facilitate future alternative renewable energy developments and associated utility infrastructure throughout the County;* *c) To support the Integrated Single Electricity Market (I-SEM) as a key priority for the Southern Region and the sustainable development and reinforcement of the energy grid including grid connections, transboundary networks into and through County Clare subject to appropriate environmental assessment and planning processes;* *d) To collaborate with EirGrid to facilitate the development of a safe, secure and reliable supply of electricity, enhanced electricity networks and new transmission infrastructure projects that might be brought forward in the lifetime of this Plan under EirGrid's (2017) Grid Development Strategy (subject to appropriate environmental assessment and the planning process);* *e) To collaborate with EirGrid over the lifetime of the plan to ensure that the County's minimum target of 1,167MW of*	The Proposed Development will include 110kV infrastructure to facilitate the connection and distribution of the renewable energy generated by the Proposed Wind Farm thereby supporting improvements in energy infrastructure and encouraging the expansion of the infrastructure within the County.

Policy	Description	Proposed Development Compliance
	renewable energy generation is achieved and can be accommodated on the electricity network in County Clare; and *f) To have regard to environmental and visual considerations in the assessment of developments of this nature and ensure compliance with the environmental requirements of Objective CDP3.3 of this plan.*	

2.4.3.3 Summary Conclusion on Local Policy for County Clare

Having regard to the above, it is clear there is strong policy support for wind energy development and associated infrastructure at a local level and a commitment to shift to a low carbon economy and away from using fossil fuels.

Having regard to the County Clare's significant available renewable resources, it is imperative that the County delivers on its renewable energy targets. Clare County Council in the CDP has set out its intention to take a leading role in respect of renewable energy technology to assist in meeting national, regional and county targets in energy consumption and CO_2 reduction. In this regard, the Council have set the County a minimum target of 1,167MW of renewable energy generation over the lifetime of the plan, with a target of 550MW from wind energy generation.

At present, it is estimated that wind farms in Co. Clare are generating approximately 244MW of electricity and so it is clear there is a significant challenge ahead for the Council if it is to deliver on its renewable energy targets from wind energy developments. The Proposed Development, which is appropriately located for wind energy development having regard to the WES, will make a meaningful contribution towards the renewable energy targets for the County.

Therefore, the Proposed Development is considered compliant with the relevant provisions of the Clare County Development Plan 2023-2029.

2.4.3.4 Limerick City & County Development Plan 2022-2028

The Limerick Development Plan 2022-2028 ('LCDP') was adopted on 17th June 2022 and came into effect on 29th July 2022 and Variation No. 1 to the Limerick Development Plan 2022 – 2028 was adopted by the Elected Members on the 22nd of May 2023.

Chapter 9 of the LCDP outlines the Climate Action, Flood Risk and Transition to Low Carbon Economy within the Limerick Development Plan 2022-2028. The LCDP states:

> *"Limerick is committed to becoming a more climate resilient place and it is at the core of the Plan.*
>
> *Limerick City and County Council recognises the need for a shift away from the traditional methods and play its role as a key stakeholder in making the transition to a low carbon economy."*

The development is further supported by the policies and objectives outlined in Table 2-6 below:

Table 2-6 Renewable Energy Policy – Limerick City and County Development Plan 2022-2028

Policy	Description	Proposed Development Compliance
Policy CAF P6 Renewable Energy	*It is a policy of the Council to support renewable energy commitments outlined in national and regional policy, by facilitating the development and exploitation of a range of renewable energy sources at suitable locations throughout Limerick, where such development does not have a negative impact on the surrounding environment landscape, biodiversity, water quality or local amenities, to ensure the long-term sustainable growth of Limerick.*	The Proposed Development is in compliance with Policy CAF P6 Renewable Energy. Through supplying sustainable renewable energy, the Proposed Development will reduce the need for non-renewable sources like coal and oil, helping to transition toward cleaner energy usage in the Limerick and Clare region.
Objective CAF O27 Renewable Energy Production	*It is an objective of the Council to encourage and facilitate the production of energy from renewable sources, such as from bioenergy, solar, hydro, tidal, geothermal and wind energy, subject to appropriate levels of environmental assessment and planning considerations.*	The Proposed Development supports Objective CAF O27 by promoting measures that build resilience to climate change to address impact reduction, adaptive capacity, awareness raising, providing for nature-based solutions and emergency planning. The Proposed Development will contribute to the progression of advancements in climate adaptation solutions and renewable energy generation and technologies in the south-west region.
Objective CAF O28 Assessment of Renewable Energy Projects	*It is an objective of the Council to encourage the development of wind energy, in accordance with Government policy and having regard to the principles and planning guidance set out in the Department of Housing, Planning and Local Government publications relating to Wind Energy Development and the DCCAE Code of Practice for Wind Energy Development in Ireland and any other relevant guidance, which may be issued in relation to sustainable energy provisions during the course of the Plan.*	The design and layout of the Proposed Development follows the recommendations and guidelines set out in the '*Wind Energy Development Guidelines'* (Department of the Environment, Heritage, and Local Government, 2006), the '*Draft Wind Energy Guidelines* ', ('WEGs') (Department of the Environment, Heritage and Local Government, 2019), and the '*Best Practice Guidelines for the Irish Wind Energy Industry*' (Irish Wind Energy Association, 2008) and is fully in accordance with all relevant development management standards, policies and guidelines.

2.4.3.5 Objective TR O39 National Roads

Objective TR O39 National Roads

A temporary transition compound is proposed as part of the Proposed Development which will be located adjacent to the N69, in the townland of Court, Co. Limerick. At this location, it is proposed that the blades are unloaded and attached to vehicles with the capability to lift the tip of the blades to an angle of 60º in order to significantly shorten the length of the vehicle in the horizontal plane which will facilitate a more streamlined delivery of turbine components to the Site. Similarly, concerning the Proposed Development, the temporary transition compound will be in place solely for the duration of turbine blade delivery to the Wind Farm Site, and transportation of large turbine components will be conducted at night-time in coordination with the relevant Roads Authorities and An Garda Síochána, with deliveries accompanied by Garda escort. Following the completion of construction, the temporary transition compound will be closed by means of fencing, and the land and boundary treatments will be restored. It is assumed that the turbine delivery element will progress at the rate of 5 extended artic trips made by convoy to the site on 2 days per week, resulting in this stage taking approximately 15 days/nights spread over a 3 week period.

It is noted that *Objective TR O39 National Roads* of the Limerick County Development Plan (LCDP) seeks to restrict development on lands adjacent to the existing national road network, and which states the following;

It is an objective of Council to:

a) *Prevent, except in exceptional circumstances and subject to a plan-led evidence-based approach, in consultation with Transport Infrastructure Ireland, in accordance with the Section 28 Ministerial Guidelines Spatial Planning and National Roads Guidelines for Planning Authorities (DoECLG, 2012), development on lands adjacent to the existing national road network, which would adversely affect the safety, current and future capacity and function of national roads and having regard to reservation corridors, to cater for possible future upgrades of the national roads and junctions;*
b) *Avoid the creation of any new direct access points from development, or the generation of increased traffic from existing direct access/egress points to the national road network, to which speed limits greater than 60km/h apply;*
c) *Facilitate a limited level of new accesses, or the intensified use of existing accesses, to the national road network on the approaches to, or exit from, urban centres that are subject to a speed limit of between 50km/h and 60km/h. Such accesses will be considered where they facilitate orderly urban development and would not result in a proliferation of such entrances;*

Policy TR 039 pertains specifically to *'new direct access point from a development'*, rather than the proposed temporary access which as set out above will be in place solely for the duration of turbine blade delivery to the Wind Farm Site, it is therefore considered that this policy is not directly applicable to the temporary transition compound. Nevertheless, there is a precedent set by An Bord Pleanála to permit planning applications for wind farms which include direct site access onto a national road, including the following cases:

Derrinlough Wind Farm, Co. Offaly (ABP-306706-20) Granted permission 26th August 2021) Works involved the upgrade of existing access and temporary improvements and modifications to existing public road infrastructure to facilitate delivery of abnormal loads including locations on the N52 and N62 and construction access for delivery of construction materials at locations on the N62.

The Inspector concluded on this matter;

> *"The potential for significant impacts from traffic will only occur during the construction stage. The N52/N62 and the regional road to the north (R 357) are the main routes that will be affected. It has been demonstrated that these roads have the capacity to accommodate the increased flows and that affected junctions will continue to operate within capacity. The impacts will be temporary and following completion of the construction stage, traffic volumes will revert to normal levels.....these impacts will be temporary and relatively short lived. I accept that the impacts will be reduced by the mitigation measures outlined above, which are standard for this type of development."*

Derryadd Wind Farm, Co. Longford (ABP-303592-19) Granted permission 12th June 2020- Works involved new access junctions and temporary modifications to existing public roads to facilitate delivery of abnormal loads and construction access including locations on the N6, N61 and N63.

In their Report, the Inspector concluded the following;

> *"The assessment, based on a worst case scenario where traffic will arrive from the one direction, found that generated traffic would result in the capacity of centre network links approaching saturation, most notably on the N63 east of Lanesborough.....This is a significant impact, but short term, and I note neither TII nor the Local Authority's Roads Design Section raised any objections in this regard"*

"....No significant impacts are anticipated by the applicant as any effects will be temporary and it is assumed that any construction access entrances will be closed on completion of construction works. This can be required by condition if permission is granted."

Meenbog Wind Farm, Co. Donegal (ABP-300460-17) Granted permission 25th June 2018 - Minor works along the road network (N56 & N15) to facilitate the delivery of wind turbine components and works to the existing site entrance off the N15.

The Inspector's report considered the following;

"The vehicular access off the N15 would be a short term temporary arrangement during the construction phase only and any adverse impacts would be correspondingly short term and temporary. Any traffic risks associated with the use of this section of the N15 and the upgrade of the site entrance would be managed by the EIAR mitigation measures which are outlined above. These include a traffic management plan and temporary traffic controls which should be put in place for the duration of the works with the agreement of the County Council. No significant impacts on traffic volumes or road safety are anticipated and I am satisfied that the access arrangements would not give rise to a traffic hazard or endanger the safety of other road users. I am also satisfied that any deviation from national policy with regard to the national road network would be short term and temporary in nature."

Inchamore Wind Farm (ABP Ref No. PL08.317889/ Kerry Co. Co Ref No. 23646) Granted permission 15th February 2024 - Works at the entrance of an existing forest road accessed off the N22 to include localised widening of the forest road and creating of a splayed entrance, removal of existing vegetation for visibility splays and removal of street furniture. The Turbine Delivery and Construction Haul Route utilise this entrance.

The Inspector's report concluded the following;

"Having regard to the temporary nature of the construction period, I consider that the traffic impact of the proposed development would be acceptable and could be appropriately mitigated. I accept the first party assertion that the proposed development will have no material impact on the existing capacity of the N62 during construction phase and operational phase impact will be negligible and the proposed development is acceptable from a traffic perspective. On this basis, I consider that traffic and roads issues are not an impediment to the proposed development."

In all of these cases, the Board accepted that the traffic impacts associated with these developments related mostly to the construction period which was deemed to be acceptable as these would be temporary and could be adequately addressed through the mitigation measures outlined in the EIAR and with the implementation of suitable conditions to address any issues prior to commencement of development.

A detailed assessment of the traffic related impacts of the Proposed Development is set out in Chapter 15 Material Assets of the EIAR. As stated in Section 15.1.1.4 of the EIAR all relevant TII guidelines and policies have been adopted in the preparation of this assessment as follows;

- PE-PDV-02045, Transport Assessment Guidelines, Transport Infrastructure Ireland, May 2014
- PE-PAG-02017, Project Appraisal Guidelines, Unit 5.3, Travel Demand Projections, Transport Infrastructure Ireland, October 2021
- DN-GEO-03060, Geometric Design of junctions, Transport Infrastructure Ireland, May 2023.
- GE-STY-01024, Road Safety Audit, December 2017.
- DN-GEO-03030, Design Phase Procedure for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes, April 2021.

A Traffic Management Plan (TMP) is included as Appendix 15-2 of this EIAR, which provides specific information relating to traffic management of the temporary transition compound access. Prior to the commencement of the construction phase of the Proposed Development, a detailed Traffic Management Plan will be prepared by the Contractor for agreement with the relevant local authorities and An Garda Síochána, which will address the requirements of any relevant planning conditions, including any additional mitigation measures which are conditioned by the Board.

Based on the above and the information presented in Chapter 15 of the EIAR it is considered that a comprehensive assessment of the impacts of the temporary transition compound access is presented in the EIAR. As set out above, the temporary transition compound will be in place solely for the duration of turbine blade delivery to the Wind Farm Site and will take place at night under Garda escort. It is therefore concluded that the use of this temporary access will have no material impact on the current or future capacity of the road network and will not compromise the safety of the N62 during the construction phase.

2.4.4 Other Relevant Onshore Wind Energy Planning Policy Publications

The following relevant onshore wind planning policy publications and/or best practice guidelines were considered in the design and assessment of the Proposed Development.

DoEHLG Wind Energy Guidelines 2006

In June 2006, the then Department of Environment, Heritage, and Local Government (DoEHLG) published '*Wind Energy Development Guidelines for Planning Authorities'* (the Guidelines) under Section 28 of the Planning and Development Act, 2000, as amended. The aim of these guidelines was to assist the proper planning of wind power projects in appropriate locations around Ireland. The Guidelines also highlight general considerations in the assessment of all planning applications for wind energy. They set out advice to planning authorities on planning for wind energy through the development plan process and in determining applications for planning permission. They contain guidelines to ensure consistency of approach throughout the country in the identification of suitable locations for wind energy development.

Each wind project has its own characteristics and defining features, and it is therefore impossible to write specifications for universal use. Guidelines should be applied practically and do not replace existing national energy, environmental and planning policy. While the Guidelines remain the relevant guidelines in place, at the time of submission of the planning application, decision makers (Planning Authorities and An Bord Pleanála) are not bound to their provisions and they can (and do) consider updated standards/requirements/specifications in assessing impacts and the proper planning and sustainable development of the area.

IWEA Best Practice Guidelines for the Irish Wind Energy Industry 2012

The Irish Wind Energy Association (IWEA) (now Wind Energy Ireland) published updated *Wind Energy Best Practice Guidelines* for the Irish Wind Industry in 2012. The guidelines aim to encourage and define best practice development in the wind energy industry, acting as a reference document and guide to the main issues relating to wind energy developments. The purpose of the guidelines is to encourage responsible and sensitive wind energy development, which takes into consideration the concerns of local communities, planners, and other interested groups. The guidelines outline the main aspects of wind energy development with emphasis on responsible and sustainable design and environmental practices, on aspects of development which affect external stakeholders, and on good community engagement practices. In approaching the development of IWEA's guidelines the aim was to be complementary to the Department of the Environment Heritage and Local Government's 'Wind Energy Development Guidelines' (2006).

IWEA Best Practice Principles in Community Engagement and Community Commitment 2013

IWEA extended its guidance with the publication of this Best Practice in Community Engagement and Commitment. IWEA and its members support the provision of financial contributions by wind farm operators to local communities and have sought to formulate best practice principles for the provision of a community commitment. The document sets out IWEA's best practice principles for delivering extended benefits to local communities for wind farm developments of 5 Megawatts (MW) or above. Best Practice Principles of community engagement when planning the engagement strategy and preparing associated literature are also outlined in the document. The aim of these guidelines is to ensure that the views of local communities are taken into account at all stages of a development and that local communities can share in the benefits.

Further details on the community engagement that has been undertaken as part of the Proposed Development are presented below.

Department Circular PL5/2017

On the 3rd of August 2017, the (then) Department of Housing, Planning and Local Government issued Circular PL5/2017 to provide an update on the review of the wind energy and renewable policies in development plans, and the advice contained within a previous Departmental Circular PL20-13. Circular PL20-13 advised that local authorities should defer amending their existing Development Plan policies in relation to wind energy and renewable energy generally as part of either the normal cyclical six-yearly review or plan variation processes and should instead operate their existing development plan policies and objectives until the completion of a focused review of the Wind Energy Development Guidelines 2006 (the Guidelines). The new circular (PL05/2017) reconfirms that this continues to be the advice of the Department.

The Circular also set out the four key aspects of a *preferred draft approach* being developed to address the key aspects of the review of the Guidelines as follows:

- The application of a more stringent noise limit, consistent with World Health Organisation noise standards, in tandem with a new robust noise monitoring regime, to ensure compliance with noise standards;
- A visual amenity setback of 4 times the turbine height between a wind turbine and the nearest residential property, subject to a mandatory minimum distance of 500 metres between a wind turbine and the nearest residential property;
- The elimination of shadow flicker; and
- The introduction of new obligations in relation to engagement with local communities by wind farm developers along with the provision of community benefit measures.

Commission for Regulation of Utilities: Grid Connection Policy

The Commission for Regulation of Utilities (CRU) (previously the Commission for Energy Regulation (CER)) launched a new grid connection policy in March 2018 for renewable and other generators, known as ECP-1, which seeks to allow "shovel ready" projects that already have a valid planning permission, connect to the electricity networks. The principal objective which guides this decision is to allow those projects to have an opportunity to connect to the network, along with laying the foundations for future, more regular batches for connection. August 2018 saw the applicants for new connection capacity under ECP-1 published. ECP-2 was launched in June of 2020, August 2018 saw the applicants for new connection capacity under ECP-1 published. ECP-2 was launched in June of 2020, which set policy for at least three annual batches of connection offers (ECP 2.1, ECP-2.2, and ECP-2.3). On 4th April 2023 the CRU published its Decision on ECP-2.4, confirming a fourth batch under the ECP-2 policy. The first three ECP-2 application windows (2.1 -2.3) opened for the month of September each

year. The application window for the fourth annual batch (ECP-2.4) is open from 1st October - 30th November 2023.The enduring connection policy regime replaces the previous 'Gate' system of grid connection applications. The grid connection application window under ECP-1 was the first time since 2007 that certain renewable energy projects including wind farms had an opportunity to secure a new grid connection offer.

Draft Revised Wind Energy Development Guidelines 2019

The Department of Housing, Planning and Local Government published the '*Draft Wind Energy Development Guidelines*' in December 2019 (the draft Guidelines). A consultation process in relation to the draft Guidelines concluded on the 19th of February 2020. A further review of the draft Guidelines is currently underway by the Department of Housing, Local Government and Heritage ('DHLGH') and the Department of Environment, Climate and Communications ('DECC') in relation to the noise limits in particular. Since the publication of the draft Guidelines, there have been significant changes in national policy regarding renewable energy targets, giving further impetus to the importance of the further review. The draft Guidelines set out that that the proper planning and sustainable development of areas and regions must be taken into account when local authorities prepare their development plans and assess planning applications, irrespective of the significant role renewable energy has to play in tackling climate change.

The draft Guidelines note that potential impacts of wind energy development proposals on the landscape, including the natural and built environment, must be considered along with the legitimate concerns of local communities. With this in mind, and in line with the previously stated "*preferred draft approach",* the draft Guidelines primarily focus on addressing a number of key aspects including, but not limited to:

- Acceptable noise thresholds and monitoring frameworks;
- Visual amenity setback;
- Control of shadow flicker;
- Compliance with Community consultation and dividend requirements, as included within the obligatory Community Report; and
- Consideration of the siting, route and design of the proposed grid connection as part of the whole project

The design of the Proposed Development has taken account of the *"preferred draft approach"* and accordingly, has been developed with the provisions of the draft Guidelines in mind (for example in relation to 4 times turbine tip height set back distance from third party sensitive receptors) and the inclusion of a standalone community report.

As stated above, the submission period for the draft Guidelines closed in February 2020. Under the consultation concerns were raised in relation to a number of themes these include but are not limited to noise, visual amenity, set back and shadow flicker. With regards to noise, a number of the received submissions noted that the provisions put forward in the draft Guidelines were unworkable and could impact the viability of the entire onshore wind sector. In relation to set back distances there was strong criticism with regards to this distance being measured to the curtilage of a property due to this measurement being ambiguous and difficult to implement. Furthermore, questions were raised surrounding the strict measures proposed for shadow flicker; the draft Guidelines put forward the provision that '*there will be no shadow flicker at any existing nearby dwelling or other relevant existing affected sensitive property' which didn't allow time for the safe shutting down of turbines.*

At time of writing the draft Guidelines are not yet finalised and have not been adopted. The relevant Wind Energy Guidelines for the purposes of section 28 of the Planning and Development Act 2000, as amended, remain those published in 2006. Notwithstanding this, however, due to the timelines associated with the planning process for renewable energy projects it is possible that an updated version of the draft Guidelines may be finalised during the consideration period for the current Proposed Development. To this end, on the basis of the details available from the draft Guidelines it is

anticipated that the Proposed Development will be capable of adhering to the relevant noise and shadow flicker standards, albeit without sight of the final, adopted Guidelines the processes by which the Proposed Development will comply with the same cannot be confirmed at this stage. While the final Guidelines have not yet been published it should be noted that the Proposed Development maintains a four times tip height set back between turbines and identified sensitive receptors, furthermore detailed community consultations have been carried out.

Renewable Energy Support Scheme

The CAP 24 is the Government's plan to give Irish people a cleaner, safer, and more sustainable future to halve emissions by 2030 and reach net zero no later than 2050. The Plan sets out actions across every sector which will ensure Ireland meets its future climate commitments. A key part of the Plan is to increase the proportion of renewable electricity to up to 80% by 2030 and a target of 9GW from onshore wind. These measures will be driven by the Renewable Electricity Support Scheme ('RESS') which aims to promote the generation of electricity from renewable sources.

The RESS is an auction-based scheme which invites renewable electricity projects to bid for capacity and receive a guaranteed price for the electricity they generate.

RESS 1 was the first Renewable Electricity Support Scheme run by the Government of Ireland and concluded in 2020. RESS 2 was run in 2022 and concluded in June 2022. The successful projects in RESS 2 represent a potential increase of nearly 20% in Ireland's current renewable energy generation capacity. They will be delivered between 2023 and 2025. A public consultation was opened in 2022 to refine the Terms and Conditions developed for RESS 2 with a limited and specific set of changes for RESS 3. This consultation closed in December 2022. RESS 3 auction was run in 2023 and concluded in September 2023.

The RESS ensures that Ireland is on a pathway to meet our ambitious climate targets and lays the foundations of a thriving and cost-effective renewable electricity market. This will support the growth of the green economy, create sustainable work opportunities, and ultimately benefit the consumer as renewables become more cost effective and increase Ireland's energy security.

The Proposed Development is in accordance with the CAP 24 and a grant of permission for the onshore wind energy development will allow for the Proposed Development to participate in the RESS auction and contribute renewable energy generation in achieving Irelands CAP target of 9GW of onshore wind generation by 2030.

2.5 Planning History

This Section of the EIAR sets out the relevant planning history of the Proposed Wind Farm and Proposed Grid Connection application site, and also identifies other wind energy developments within the wider area (25km from the EIAR site boundary).

2.5.1 Planning Applications within the Proposed Wind Farm Application Boundary

A planning search was carried out through the national planning application database[12] and An Bord Pleanála's online planning portal in August 2024 for relevant planning applications lodged within the planning application boundary of the Proposed Wind Farm. The planning applications within the wind farm site are outlined in Table 2-7 below.

[12] *https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de*

Table 2-7 Planning Application History within the Wind Farm Site Boundary

Pl Ref	Description	Decision
ABP-318782-23	Planning Permission to develop a Windfarm and Ancillary Infrastructure within the townlands of Ballycr (North), Belvoir, Cloghera, Cloonsheerea, Cloontra, Cloontra East, Cloontra West, Crag, Derrynaveagh, Derryvinnan, Drumsillagh, Sallybank (Merrit), Droomsillagh or Sallybank (Parker), Gortacullin, Knockbrack Lower, Knockshanvo, Kyle, Mountrice, Oatfield and Snaty, Co.Clare	Decision Due
03/2325	To construct an extension to an existing dwelling house.	Permission granted 12/02/2004

2.5.2 Planning Applications within the Proposed Grid Connection Application Boundary

The planning applications within the Grid Connection boundary are outlined in Table 2-8 below.

Table 2-8 Planning Application History within the Grid Connection Site Boundary

Pl. Ref	Description	Decision
2460351	To RETAIN changes to original house plans submitted for grant of planning permission P8/10268, and for detached shed and all associated site development works	Decision Due 23/09/2024
24218	To construct a slatted slurry storage tank with associated site works	Decision Due 01/09/2024
ABP-318782-23	Planning Permission to develop a Windfarm and Ancillary Infrastructure within the townlands of Ballycr (North), Belvoir, Cloghera, Cloonsheerea, Cloontra, Cloontra East, Cloontra West, Crag, Derrynaveagh, Derryvinnan, Drumsillagh, Sallybank (Merrit), Droomsillagh or Sallybank (Parker), Gortacullin, Knockbrack Lower, Knockshanvo, Kyle, Mountrice, Oatfield and Snaty, Co.Clare	Decision Due
2348/ ABP-317705-23	For a Medical Centre and all associated site works	Granted Permission by An Bord Pleanála 05/07/2024
2337	To fill land with topsoil, subsoil, stone and inorganic construction material to raise the level of the land for agricultural purposes. A Natura Impact Statement is included with the application.	Granted Permission 21/12/2023
23148/ ABP-317227-23	for development of a wind farm in the townlands of Fahy Beg, Fahy More North, Ballymoloney, Ballyknavin (Ed O'Briensbridge), Balllyquin More, Woodpark and Leitrim, Co Clare together with the development of an underground grid connection cable to the national grid. The underground grid connection is located primarily within the public road within the townlands of Leitrim, Fahy More South, Ballybrack, Aharinaghmore, Tooreen (Ed Cloghera) Aharinaghbeg, Knockdonagh, Roo East, Blackwater, Rosmadda West, Parkroe, Lackyle (Ed Ballyglass) and Castlebank, Co Clare.	Granted Permission by An Bord Pleanála 21/03/2024
21799	for the construction of a new fully serviced two storey detached dwelling house, new single storey detached garage, new vehicular entrance landscaping and boundary treatments, new connection to existing Roo West group water scheme and installation of a new wastewater treatment system and percolation area together with all ancillary and associated site works	Granted Permission 28/10/2021

Pl. Ref	Description	Decision
21843	to construct dwelling house, garage, bored well, waste water treatment system, percolation area, entrance and all associated site works	Granted Permission 08/11/2021
23209	to construct dwelling house, garage, waste water treatment system, percolation area, entrance and all associated site works	Granted Permission 30/08/2023
2298	for a preschool facility, entrance and all associated site works	Granted Permission 01/09/2022
20961	for a dwelling house, entrance and all associated site works	Granted Permission 05/05/2021
21451	to construct dwelling house, garage, bored well, waste water treatment system, percolation area, entrance and all associated site works	Granted Permission 04/11/2021
19118	to construct garage and all associated site works	Granted Permission 04/05/2019
191013	to RETAIN a development at Cois Sionna, Lackyle, Ardnacrusha, Co Clare. The development consists of a) The connection of an unauthorized garage and home office/study to an existing dwelling, b) an unauthorized extension linking the existing unauthorized garage to the existing dwelling house, c) an unauthorized enclosed porch to the front of the dwelling house, d) an unauthorized connection to an existing foul sewer. The Permission to RETAIN is being sought for an unspecified period of time	Granted Permission 27/03/2020
16970	to demolish 180m2 of existing structure and construct a Dairy Parlour and extend cubicle house, along with ancillary site works	Granted Permission 12/03/2017
16713	for the demolition of existing lean-to extension to rear of dwelling house, construction of a new bedroom extension to rear of dwelling house to include internal alterations and modifications, alterations to windows on existing elevations and construction of a single storey granny flat extension to the rear of existing dwelling house and all associated site works	Granted Permission 04/12/2016

2.5.3 Other Developments/Land uses

The review of the national planning application database documented relevant general development planning applications in the vicinity of the Proposed Wind Farm site, the majority of which relate to the provision and/or alteration of one-off rural housing and the provision of agricultural buildings. These applications and land uses have also been taken account in describing the baseline environment and in the relevant assessments. Furthermore, the cumulative impact assessments carried out in each of the subsequent chapters of this EIAR consider all potential significant cumulative effects arising from all land uses in the vicinity of the Proposed Development. The potential for cumulative effects during the construction, operational and decommissioning phases of Proposed Development have therefore been assessed. The long list of applications which have been considered in the cumulative assessment of this EIAR are included as Appendix 2-2 of this EIAR.

2.5.4 Wind Energy Developments within 25km of the Site

A planning search was carried out to establish permitted, operational and proposed wind energy developments within 25km of the proposed turbines for the purposes of informing the potential cumulative effects (see section 2.7 of this Chapter for further details and Table 2-12 for details on the rationale for this study area). The search was carried out using the relevant local authority, An Bord

Pleanála and EIA planning portals in February 2024 for relevant planning applications. In total, 7 no. applications relating to wind energy were identified within 25km of the proposed turbines, 2 no. of which relate to single turbine developments and a further 5 no. of which relate to larger multiple turbine wind farm developments. These are outlined in greater detail in Table 2-9 below:

Table 2-9 Wind Energy Applications within 25km of the Proposed Turbines

Pl. Ref.	Applicant	Wind Farm	Description	Decision	Status	Turbine No.	Approximate Distance to Nearest Turbine (km)
Single/ Domestic Turbines							
Pl. Ref: 10/453 (EOD 15/812), 22254, ABP-314887-22	Seamus Madden	Parteen Turbine	Permission for a revised site boundary and revised position of a single 800kw wind turbine, 73 metres to hub height as granted under P10/453 and P15/812.	Granted by ABP on 12/10/2023	Permitted	1	c.9.3km
Pl. Ref: 13/746	Johnson & Johnson Vision Care Ireland	Vistakon Wind Turbine	Wind turbine of up to 3mw, Hub height of up to 80m and rotor radius of up to 40m and associated infrastructure, construction of internal site track and all other associated works (An Environmental Impact Statement (EIS) will be submitted to the Planning Authority with the application.	Granted by Limerick County Council on 27/03/2014	Operational	1	c.14km
Larger Wind Energy Applications							
Pl Ref: ABP.308799	Coillte	Carrownagowan Wind Farm	19 wind turbines, one meteorological mast, 110kV substation and all associated site development works.	Granted by ABP on 29/09/2022 subject to conditions	Existing	19	c.11km
Pl Ref: ABP.317227	RWE Renewables Ireland Limited	Fahybeg Wind Farm	Development of a wind farm together with the development of an underground grid connection cable to the national grid. The development will consist of 8 wind turbines, a permanent	Granted by ABP on 06/03/2024 subject to conditions	Permitted	8	c.10km

Pl. Ref.	Applicant	Wind Farm	Description	Decision	Status	Turbine No.	Approximate Distance to Nearest Turbine (km)
			meteorological mast, an onsite 38kV electrical substation, and all associated site works.				
Pl Ref: **ABP.318782**	Ørsted Onshore Ireland Midco Limited	Oatfield Wind Farm	Proposed 11 no. turbine wind farm.	Decision due from ABP.	In Planning - Lodged with ABP on 22/12/2023	11	c.4km
Pl. Ref: **ABP.318943**	Ballycar Green Energy Ltd	Ballycar Wind Farm	Proposed 12 turbine windfarm, located on a 140-hectare site	Decision due from ABP.	In Planning- Lodged with ABP on 26/01/2024	12	c.4.7km
Pl. Ref. N/A Pre-Planning	EDF Renewables	Lackareagh Wind Farm	Proposed 7 no. turbine c. 50MW MEC wind farm.	Pre-Planning	Pre-Planning	7	c.9.5km

2.6 Scoping and Consultations

2.6.1 Scoping

Scoping is the process of determining the content, depth and extent of topics to be covered in the environmental information to be submitted to a competent authority for projects that are subject to an EIA. This process is conducted by contacting relevant authorities and Non-Governmental Organisations (NGOs) with interest in the specific aspects of the environment with the potential to be affected by the proposal. These organisations are invited to submit comments on the scope of the EIAR and the specific standards of information they require. Comprehensive and timely scoping helps ensure that the EIAR refers to all relevant aspects of the Proposed Development and its potential effects on the environment and provides initial feedback in the early stages of the EIAR preparation, when alterations are still easily incorporated into the design. In this way scoping not only informs the content and scope of the EIAR, but it also provides a feedback mechanism for the proposal design itself.

As part of the constraints mapping process, which is detailed in Chapter 3 of this EIAR, Ai Bridges were commissioned to evaluate the possible impacts that the proposed wind farm development at Knockshanvo, Co. Clare could have on existing telecommunications operator networks. Telecommunications operators, were initially contacted in October 2020 in order to determine the presence of telecommunications links or aviation assets traversing or located in close proximity to the Site. In August 2023, Ai Bridges undertook a new round of telecom operator consultations, to reflect the new 9-turbine layout. None of the Telecommunication Operators contacted during the consultation process raised any concerns regarding telecommunications networks operating in the licence-exempt frequency bands. Also there was no impacts reported by any of the telecommunications operators operating GSM Radio Access, Mobile Broadband Data Access, Tetra or Telemetry networks.

A scoping report, providing details of the Proposed Development, was prepared by MKO and circulated to prescribed statutory bodies in January 2023 with follow up scoping taking place in January 2024. The scoping document provided details of the Proposed Development and set out the scope of work for the EIAR. Consultees were invited to contribute to the EIAR by suggesting baseline data, survey techniques and potential impacts that should be considered as part of the assessment process and in the preparation of the EIAR.

2.6.2 Scoping Responses

Table 2-10 below lists the responses received from the bodies to whom the scoping document was circulated. Copies of all scoping responses received are included in Appendix 2-1 of this EIAR. If further responses are received, the comments of the consultees will be considered, where applicable, in the construction, operation and decommissioning of the Proposed Development in the event of a grant of planning permission. The recommendations of the consultees have informed the scope of the assessments undertaken and the contents of the EIAR.

Table 2-10 Scoping Responses

Consultee	Date of Response
2rn (formerly RTÉ Transmission Network Ltd.)	Response received 23rd October 2020
Ajisko Ltd	No response received
An Chomhairle Ealaion	No response received
An Taisce	No response received
Bat Conservation Ireland	No response received
BBnet	No response received
BirdWatch Ireland	No response received
Broadcasting Authority of Ireland	Response received 23rd January 2023
BT Communications Ireland	Response received 23rd October 2020

Consultee	Date of Response
Clare County Council – Planning Department	Response received 27th February 2023
Clare County Council – Roads and Transportation Department	
Clare County Council – Environment and Water Services Department	
Commission for Communications Regulation (ComReg)	Response received 4th November 2020
Commission for Regulation of Utilities Water and Energy	No response received
Department of Agriculture, Food and the Marine	Response received 26th January 2023
Department of Defence	Response received 15th February 2023
Department of Housing, Local Government and Heritage	No response received
Department of the Environment, Climate and Communications	No response received
Department of Tourism, Culture, Arts and Gaeltacht, Sport and Media	No response received
Department of Transport	Response received 1st February 2023
Eir	Response received 13th November 2020
EirGrid	No response received
Enet	Response received 23rd October 2022
ESB Telecoms	Response received 27th October 2020
Failte Ireland	Response received 3rd February 2023
Forest Service	No response received
Geological Survey of Ireland	Response received 8th February 2023
Health Service Executive	Response received 1st March 2023
Iarnród Éireann	Response received 13th February 2023
Imagine Group	Response received 23rd October 2020
Inland Fisheries Ireland	Response received 23rd February 2023
Irish Aviation Authority	Response received 3rd February 2023
Irish Peatland Conservation Council	No response received
Irish Raptor Study Group	No response received
Irish Red Grouse Association	No response received
Irish Telecom Services	No response received
Irish Water	No response received
Irish Wildlife Trust	Response received 24th January 2023
Kirby Engineering Group	No response received
Lighthouse Networks Limited	Response received 23rd October 2020
Limerick County Council – Heritage Department	No response received
Limerick County Council – Roads Department	No Response Received
National Parks and Wildlife Services (NPWS)	Response received 15th March 2023
Office of Public Works	No response received
Ripplecom	Response received 9th November 2020
Shannon Airport	No response received
Southern Regional Assembly	No response received
Sustainable Energy Authority of Ireland	No response received
Tetra Ireland Communications Ltd.	Response received 27th October 2020
The Heritage Council	No response received
Three Ireland	Response received 30th October 2020
Tipperary County Council – Environment Department	Response received 19th April 2023

Consultee	Date of Response
Tipperary County Council – Roads Department	Response received 19th April 2023
Towercom	Response received 28th October 2020
Transport Infrastructure Ireland	Response received 15th April 2024 2023
Treaty Radio Ltd	Response received 10th November 2020
Viatel Ireland Ltd	Response received 9th November 2020
Virgin Media Ireland Ltd	Response received 23rd October 2020
Vodafone Ireland Ltd	Response received 27th October 2020
Waterways Ireland	No response received

Table 2-11 below provides a summary of the details of the responses received from the consultees. The table also identifies the relevant section of the EIAR where the points raised by each of the consultees are addressed.

Table 2-11 Summary of responses received from Consultees.

Consultee	Response Received	Response Summary	Addressed in Chapter
2rn (formerly RTE Transmission Network Ltd.)	Response received 23rd October 2020	Identifies two paths carrying several services on and near the area highlighted by MKO. States there is definite risk of interference to reception of a number of services and asks that a protocol between the developer and 2rn be signed should the development go ahead.	Chapter 15 Material Assets
Broadcasting Authority of Ireland	Response received 23rd January 2023	BAI does not perform an in-depth analysis of the effect of wind turbines of FM networks. The proposed wind farm is not located close to any existing or planned FM transmission sites.	Chapter 15 Material Assets
BT Communications Ireland	Response received 23rd October 2020	The Proposed Development will have no impact on the BT microwave network.	Chapter 15 Material Assets
Clare County Council – Planning Department	Response received 27th February 2023	Outlined the need for detail on length of planning permission and operational length. Advised that issues outlined regarding water quality, noise & vibration, habitat protection, hen harrier, adjacent land uses & sensitive receptors, population and human health, visual amenities, cumulative impacts, Grid connection, ground conditions, major accidents, traffic and transportation, cultural heritage and planning policy, need to be considered within the EIAR	Addressed throughout EIAR
Commission for Communications Regulation	Response received 4th November 2020	Attached a list of operators within 15km of the development.	Chapter 15 Material Assets
Department of Agriculture, Food and the Marine	Response received 26th January 2023	Letter summarising requirement for felling licence if the Proposed Development involves felling/ removal of trees. Note that there must be absolute spatial consistency between the felling licence areas submitted to DAFM (second authority) and all related planning documents submitted to the first authority in respect of the felling area(s)	Chapter 6 Biodiversity
Department of Defence	Response received 15th February 2023	Provided requirements for obstacle lighting.	Chapter 15 Material Assets
Department of Transport	Response received 1st February 2023	Letter received from the Department: The Proposed Development especially the connection cables to national grid will have effects on both the environment and the Regional and local road network. Examine mitigating disruptions to local and national road networks. Ensure when applying conditions to any approval	Chapter 3 Reasonable Alternatives Chapter 15 Material Assets

Consultee	Response Received	Response Summary	Addressed in Chapter
		that local authorities are informed of the route chosen for cables in public road spaces, developer must comply with standards. Avoid bridge structures and notify road authorities of cables owners/ providers.	
Eir	Response received 13th November 2020	Does not have transmission services that will be affected by the development.	Chapter 15 Material Assets
Enet	Response received 23rd October 2022	Has three links that could possibly be affected.	Chapter 15 Material Assets
ESB Telecoms	Response received 27th October 2020	Has significant amount of point to multipoint and point to point radio links in the area. Correspondence to continue as development progresses to allow for detailed impact analysis.	Chapter 15 Material Assets
Failte Ireland	Response received 3rd February 2023	Provided EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects	Chapter 5 Population and Human Health
Geological Survey of Ireland	Response received 8th February 2023	Provided a link to a list of publicly available datasets which are recommended to be used when conducting the EIAR, SEA, planning and scoping processes. The Letter also outlined that the audit for Co. Clare was completed in 2005, records show that there is a County Geological Sites (CGS) on the margins of the proposed wind farm site boundary. Ballyvorgal South, Co. Clare (GR 151261, 168493), under IGH theme: IGH 2 Precambrian to Devonian Palaeontology. This site is the type locality for five species of trilobite. The gorse, bramble and other vegetation overgrowing the stream banks means there are currently only three small exposures of the brown mudstones, and no clear section of the trilobite bed. Whilst it would be necessary for some clearance to take place for any future study, if the landowner was to undertake any drainage work in the immediate vicinity of the stream, then a geological investigation should be made at the same time. Equally any major forestry work (felling/gripping/planting) in the adjacent western bank of the stream (not included within the site boundary) should be notified so that investigation may also occur of fresh exposures. The Groundwater Data Viewer indicates aquifers classed as a 'Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones' and a 'Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones' underlie the proposed wind farm development.	Chapter 8 Land, Soils and Geology Chapter 9 Hydrology and Hydrogeology

Consultee	Response Received	Response Summary	Addressed in Chapter
		Recommend use of the Groundwater Viewer to identify areas of High to Extreme Vulnerability and 'Rock at or near surface' in your assessments, as any groundwater-surface water interactions that might occur would be greatest in these areas. The Landslide Susceptibility Map indicates there are some areas of Moderately High to High Landside Susceptibility in the wind farm site boundary area. Should development go ahead, all other factors considered, Geological Survey Ireland appreciate a copy of reports detailing any site investigations carried out. Should any significant bedrock cuttings be created, Geological Survey Ireland requested that they will be designed to remain visible as rock exposure rather than covered with soil and vegetated, in accordance with safety guidelines and engineering constraints. In areas where natural exposures are few, or deeply weathered, this measure would permit on-going improvement of geological knowledge of the subsurface and could be included as additional sites of the geoheritage dataset, if appropriate.	
Health Service Executive	Response received 1st March 2023	Provided general guidance for EIAR sections/ chapters from a health perspective	Addressed throughout EIAR
Iarnród Éireann	Response received 13th February 2023	Stated that should the grid connection for the Proposed Development be planned to cross railway property then the developer must enter into a wayleave agreement with Iarnród Éireann and CIÉ for the crossings. It is unclear from the documents submitted what route is planned for the grid connection.	Chapter 3 Reasonable Alternatives
Imagine Group	Response received 23rd October 2020	Development will not cause an issue for Imagine.	Chapter 15 Material Assets
Inland Fisheries Ireland	Response received 23rd February 2023	Outlined concern for the protection of the aquatic resource and the associated riparian habitat. In particular they are concerned for the protection of streams flowing south from the site into the Blackwater and flowing north into the Owenogarney, as they are salmonid rivers that provide for salmonid spawning habitat and have good to high water quality according to the most recent EPA Q-value surveys. Current flow regimes must not be changed due to windfarm construction. The accompanying map is low on detail making it difficult to assess, therefore the comments below are generic in nature and reflect the general concerns in relation to such developments. Additional concerns may be raised when the final EIAR and planning application is available. Comments: All watercourses that perceive drainage from construction site of turbines or access roads must be assessed in terms of aquatic fish, the food of fish, spawning grounds and fish habitat.	Chapter 6 Biodiversity Chapter 8 Land, Soils and Geology Chapter 9 Hydrology and Hydrogeology Appendix 4-3 Construction and Environmental Management Plan

Consultee	Response Received	Response Summary	Addressed in Chapter
		The aquatic habitat and physical nature of any watercourse affected by the development must be fully described in detail. Concerns about soil: have concerns about the stability of the soils and the impact that works on both the turbines and access roads may have either directly or by vibration on the stability of the soils. IFI are particularly concerned where it is proposed to construct wind turbines on peat soils especially if these peat soils are located on upland areas. This would appear to be the case in the current application. Strongly recommended that specialist personnel are employed to assess soil strength and suitability of the ground at each site and along any proposed access road (especially peat soils). Stated that particular attention should be paid to the hydrology of any site where excavations, including excavations for road construction are being undertaken. Attention should be paid to drainage during both the construction phase and the operational phase. They have concerns about the construction of roads as these will tend to provide preferential flow paths for surface waters. Consideration must be given to the disposal of waste materials. Details in relation to site offices and the services necessary for the site offices should form part of the EIA. The use of sedimentary rocks, such as shale, in road construction should be avoided. In relation to watercourse crossings for the road or grid connection please be advised that IFI will require to be consulted well in advance in relation to all watercourse crossings or the use of any temporary diversions. Please also note that any instream works or other works which may impact directly on a watercourse should only be carried out during the open season which is from 1st July to 30th of September in each year. The EIAR should indicate proposals to monitor the impact on watercourses within the site (especially environmental damage control).	Appendix 4-4 Surface Water Management Plan
Irish Aviation Authority	Response received 3rd February 2023	1. Instrument Flight Procedures (IFPs) Shannon Airport: the ANSP is required to Safeguard these IFPs In the area around Knockshanvo as per an accompanying report, there are a range of grid values from 361m to 401m. It is understood that the proposed blade-tip heights are c.170m. This equates to a c.370m AMSL elevation based on a general site elevation of 200m. Added to this any potential cranage used during construction will need a full IFP Assessment. 2. Woodcock Hill Radar: Surveillance effect (IAA ANSP Surveillance Domain copied). Generally, any significant obstacle within 16km of this facility may have impact. In the case of this proposed Wind farm, this is highly likely and will need to be assessed with mitigations proposed. Please note that	Chapter 15 Material Assets

Consultee	Response Received	Response Summary	Addressed in Chapter
		previous experience has shown that mitigations suggested for similar developments have been prohibitively costly for the ANSP and ultimately don't guarantee that the surveillance service is not affected. The EUROCNTROL Guidelines on How to Assess the Potential Impact of Wind Turbines Surveillance Sensors was attached. 3. Navigation Aids (NAVAIDS): This will need to be considered by my NAVAID colleagues (copied), although generally there should not be an impact. There is however another aspect to this. On a 6-monthly basis, these NAVAIDs have to be flight calibrated. The calibration aircraft flies in this area at low altitudes to achieve this and a report from this company (FCSL) may be required also.	
Irish Wildlife Trust	Response received 24th January 2023	They do not have the staff capacity to respond to the consultation at the moment, but will endeavour to respond if possible.	
Lighthouse Networks Limited	Response received 23rd October 2020	Do not have a presence within the area at the time of contact	Chapter 15 Material Assets
National Parks and Wildlife Services (NPWS)	Response received 15th March 2023	General archaeological assessment guidelines provided. General bird survey guidelines provided. Of particular note for this Proposed Development are Hen Harrier. There was a confirmed breeding pair and one probable nesting pair on Slieve Bernagh recorded last year, 2022. The proposed site is approx. 7km at the nearest point from the probable breeding area. There is also one pair of breeding Peregrines above Broadford, approx. 2km to the nearest point of the proposed site. General bat guidance and the Department would like to highlight new research on patterns of bat activity in upland wind farms which indicates it is more appropriate to use 30-day survey periods with static automated detectors, in each season, and in different weather conditions to reduce sampling bias and to accurately determine when the curtailment mitigation is required during the operational phase. There are a number of Lesser Horseshoe SAC's in the vicinity of the Proposed Development. Of particular importance is Danes Hole, Poulnalecka SAC [000030] and the Ratty River Cave SAC [002316]. There was a significant number of bats recorded hibernating in the winter roosts in 2023, and breeding in the maternity roosts in 2022 at these sites. Wetland: Further to potential impacts on the species listed above, for example, one of the main threats identified in the threat response plan for Otter is habitat destruction. A 10m riparian buffer on both banks of a waterway is considered to comprise part of the Otter habitat. The Department highlights the status of	Chapter 6 Biodiversity Chapter 7 Ornithology Chapter 8 Land, Soils and Geology Chapter 9 Hydrology and Hydrogeology Chapter 14 Cultural Heritage Appendix 4-3 Construction and Environmental Management Plan Appendix 4-4 Surface Water Management Plan

Consultee	Response Received	Response Summary	Addressed in Chapter
		two of the NHAs to the North of the proposed site – Cloonloum More Bog NHA (002307) and Doon Lough NHA (000337). They are currently due to be de-designated. › Peat stability should be assessed where required. › Marsh fritillary surveys should be carried out as per standard Marsh Fritillary Larval Web Survey methodology. Assess invasive species and protect hedgerow habitats. All potential cumulative, in-combination and ex situ impacts must be assessed. For example, Carrownagowan Windfarm on the western slopes of Slieve Bearnagh was recently granted permission. General guidelines on CEMPs and a habitat management plan (HMP). General AA and biodiversity guidelines.	
Ripplecom	Response received 9th November 2020	No links will be impacted.	Chapter 15 Material Assets
Tetra Ireland Communications Ltd.	Response received 27th October 2020	Anticipate no impact from the Proposed Development.	Chapter 15 Material Assets
Three Ireland	Response received 30th October 2020	States they have one link in the area but was due to be decommissioned by the end of 2020.	Chapter 15 Material Assets
Tipperary County Council	Response received 17th April 2023	Response stated that the scoping request was forwarded on to a number of Senior Management Staff and Staff members from within the Planning and Environment & Climate Action Sections.	
Towercom	Response received 28th October 2020	Does not have any links in the area.	Chapter 15 Material Assets
Transport Infrastructure Ireland	Response received 24th October 2023	The developer should have regard, inter alia, to the following: › Consultations should be had with the relevant Local Authority/National Roads Design Office with regard to locations of existing and future national road schemes. › TII would be specifically concerned as to potential significant impacts the development would have on the national road network (and junctions with national roads) in the proximity of the Proposed Development, including the potential haul route. › The developer should assess visual impacts from existing national roads.	Chapter 3 reasonable Alternatives Chapter 12 Noise and Vibration Chapter 14 Landscape and Visual

Consultee	Response Received	Response Summary	Addressed in Chapter
		› The developer should have regard to any EIAR/EIS and all conditions and/or modifications imposed by An Bord Pleanála regarding road schemes in the area. The developer should in particular have regard to any potential cumulative impacts. › The developer, in conducting EIA, should have regard to TII Publications. › The developer, in conducting EIA, should have regard to TII's Environmental Assessment and Construction Guidelines, including the 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes'. › The EIAR/EIS should consider the 'Environmental Noise Regulations 2006' (SI 140 of 2006) and, in particular, how the development will affect future acon plans by the relevant competent authority. The developer may need to consider the incorporation of noise barriers to reduce noise impacts. › It would be important that, where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment be carried out in accordance with relevant guidelines, amongst traffic volumes amending the site and traffic routes to/from the site with reference to impacts on the national road network and junctions of lower category roads with national roads. In relation to national roads, the Authority's Traffic and Transport Assessment Guidelines (2014) should be referred to in relation to proposed development with potential impacts on the national road network. The scheme promoter is also advised to have regard to Section 2.2 of TII's TTA Guidelines, which addresses requirements for sub-threshold TTA. And improvements required to facilitate development should be identified. It will be the responsibility of the developer to pay for the costs of any improvements to national roads to facilitate the private development proposed, as TII will not be responsible for such costs. › The designers are asked to consult TII Publications to determine whether a Road Safety Audit is required. › In the interests of maintaining the safety and standard of the national road network, the EIAR should identify the methods/techniques proposed for any works traversing/in proximity to the national road network. › TII recommends that that applicant/developer should clearly identify haul routes proposed and fully assess the network to be traversed. › The provision of cabling along the national road network represents a number of significant implications for TII and the road authorities in the management and maintenance of the strategic national road network, and TII is of the opinion that grid connection cable routing should reflect the	Chapter 15 Material Assets Appendix 15-2 Traffic Management Plan

Consultee	Response Received	Response Summary	Addressed in Chapter
		foregoing provisions of official policy and therefore, avoid grid connection routing proposals along national roads. › Cable routing should avoid all impacts to existing TII infrastructure such as traffic counters, weather stations, etc. and works required to such infrastructure shall only be undertaken in consultation with and subject to the agreement of TII, any costs attributable shall be borne by the applicant/developer. The developer should also be aware that separate approvals may be required for works traversing the national road network.	
Treaty Radio Ltd	Response received 10th November 2020	Identifies links in the area but should not have any disruptions due to direction.	Chapter 15 Material Assets
Viatel Ireland Ltd	Response received 9th November 2020	Have no links in the area	Chapter 15 Material Assets
Virgin Media Ireland Ltd	Response received 23rd October 2020	Do not have any microwave links in the area	Chapter 15 Material Assets
Vodafone Ireland Ltd	Response received 27th October 2020	Identifies links within the area and sets a standard buffer of 100m	Chapter 15 Material Assets

2.6.3 Other Consultations

2.6.4 Pre- Planning Meetings

2.6.4.1 Clare County Council

Members of the project team first met with Clare County Council in November 2022. The purpose of this meeting was to discuss the Community Engagement and provide a high-level introduction to the Proposed Development. We also note that in November 2022, the design team met with Clare County Council to discuss the importance and methodology of Community Engagement and Consultation, which has been carried out at a high-level at the beginning of the early design stages of this project.

Members of the project team and the Applicant met with representatives from Clare County Council in accordance with Section 247 of the Planning and Development Act 2000 (as amended) (the Act) via MS teams on the 5th April 2023.

The project team gave an overview of the Proposed Development in the form of a PowerPoint presentation which set out the following information:

- A high-level overview of the Proposed Development and the Subject Site.
- An introduction to the Applicant.
- Overview of relevant planning policy including compliance with local wind energy policy.
- Provided specific details of the scheme relating to LVIA, Ecology and Aviation.
- Set out the scope of the Environmental Impact Assessment Report to be undertaken.
- Discussed scoping & pre-application/public consultation undertaken to date.
- Set out the projected project timelines.

A second meeting with representatives from Clare County Council under Section 247 of the Act took place on the 7th December 2023 via MS teams.

The project team gave an update on the Proposed Development in the form of a PowerPoint presentation which set out the following information:

- Background to the Proposed Development including Pre-Application Consultations undertaken.
- An overview of the Project.
- Road upgrade works required.
- The scope of the Cumulative Impact Assessment to be undertaken.
- An overview Public Consultation undertaken to date and future actions to be carried out.
- Set out the revised project timelines.

2.6.4.2 Pre-Application Consultation with Limerick County Council

The Applicant undertook a pre-application consultation with Limerick County Council to address the proposed temporary transition compound as part of the Proposed Development under Section 247 of the Planning and Development Act 2000 (as amended). A meeting was held with Limerick County Council and the design team on the 9th April 2024. The design team gave an overview of the proposed temporary transition compound element of the Proposed Development in the form of a PowerPoint presentation which set out the following information:

- A High-level overview of the Proposed Development, its Background, the Subject Site and the proposed grid route.
- Overview of details of the proposed temporary transition compound.
- Overview of planning policy including compliance with planning legislation and regulations.
- Set out the scope of the Environmental Impact Assessment Report to be undertaken.
- Discussed scoping & pre-application/public consultation undertaken to date.

2.6.5 An Bord Pleanála

2.6.5.1 Section 37B Consultation

The Applicant engaged with An Bord Pleanála under the provisions of Section 37B of the Planning and Development Act 2000 (as amended), as to whether the Proposed Development would meet the thresholds of the Seventh Schedule of the Planning and Development Act, 2000, as amended. The applicant opened consultations with the Board in February 2023 in relation to a Proposed Development of approximately 9 no. wind turbines and all associated works including the provision of a dedicated looped grid connection to the existing 110kV Ardnacrusha substation or a dedicated 110kV connection to Drumline 110kV substation at Knockshanvo and adjacent townlands, Co. Clare.

A SID meeting under the provisions of Section 37B was held with the Board on the 4th May 2023.

The design team gave an overview of the Wind Farm element of the Proposed Development in the form of a PowerPoint presentation which set out the following information:

- A High-level overview of the Proposed Development and the Subject Site.
- Introduction to the applicant.
- Overview of planning policy including compliance with local wind energy policy.
- Provided specific details of the scheme relating to LVIA, Ecology and Aviation.
- Set out the scope of the Environmental Impact Assessment Report to be undertaken.
- Discussed scoping & pre-application/public consultation undertaken to date.
- Set out the projected project timelines.
- Discussed the relevant Strategic Infrastructure Development criteria as set out in the 7th Schedule of the Act.

On the 10th October 2023, MKO, on behalf of the Applicant, sought to close the consultation process with An Bord Pleanála. On the 15th of November 2023, the Board wrote to the applicant and confirmed that consultation was closed and that the Wind Farm Site was considered to be strategic infrastructure within the meaning of Section 37A and such any application for approval of the Wind Farm Site should be made directly to the Board.

A second Section 37B Pre-Application Consultation Meeting was held with An Bord Pleanála on the 4th April 2024 in respect of opening a Section 37CC(1) Consultation under the Design Flexibility process and to determine if the Proposed Development can be classified as a Strategic Infrastructure Development under Section 37 and Section 37CC(1) Design Flexibility. This consultation is described in more detail in Section 2.6.5.3.

2.6.5.2 Section 182E Consultation

The Applicant engaged with An Bord Pleanála under the provisions of Section 182E of the Planning and Development Act 2000 (as amended).

A SID meeting under the provisions of Section 182E was held with the Board on the 6th October 2023.

The design team gave an overview of the proposed grid route and connection element of the Proposed Development in the form of a PowerPoint presentation which set out the following information:

- A High-level overview of the Proposed Development, the Subject Site and the proposed grid route.
- Overview of planning policy including compliance with planning legislation and regulations.
- Provided specific details of the scheme relating to Road's infrastructure and ecological assessments.
- Set out the scope of the Environmental Impact Assessment Report to be undertaken.
- Discussed scoping & pre-application/public consultation undertaken to date.
- Discussed the relevant Strategic Infrastructure Development criteria as set out in the 7th Schedule of the Act.

On the 5th December 2023, MKO, on behalf of the Applicant, sought to close the consultation process with An Bord Pleanála. On the 18th January 2024 the Board wrote to the applicant and confirmed that consultation was closed and that any application for approval of the transmission development should be made directly to the Board.

2.6.5.3 Section 37CC(1) Consultation

The Applicant also engaged with An Bord Pleanála under the Planning and Development Act 2000 (as amended), in respect of the level of design flexibility to be included in the application (as defined in 15I of the Planning and Development Regulations 2001, as amended ("the Regulations") as "opinion on unconfirmed details"). This flexibility meeting request was made in accordance with the recently commenced (S.I No. 645 of 2023) legislative provisions relating to design flexibility introduced by the Planning and Development, Maritime and Valuation (Amendment) Act 2022. The legislation provides for a process whereby prospective applicants may request a meeting with the Board for the purpose of receiving an opinion as to whether it is appropriate that an application for permission be made before certain details of the Proposed Development are confirmed.

A meeting under Section 37CC(1) Consultation was held with the Board on the 4th April 2024(Case Reference ABP-319151-24). The design team gave an overview of the details unlikely to be confirmed at application lodgement, which were set out as follows:

- Turbine total tip height
- Turbine rotor diameter
- Turbine hub height

The parameters within which the turbine specifications will fall were set out as follows:

- Total tip height range of 179.5m – 185m
- Rotor diameter range of 149m – 163m
- Hub height range of 102.5m to 110.5m

It was also explained to the Board that the design flexibility requirement arises as the exact make and model of the turbine cannot be confirmed prior to making the application as this will be dictated by a competitive tender process of the various turbines on the market at the time of procurement and construction, which necessitates the requirement for associated unconfirmed details to be included in the application.

A design flexibility opinion was issued by An Bord Pleanála on 21st May 2024 and accompanies the Wind Farm application. The details unconfirmed in this application are the turbine tip height, rotor diameter and hub height. The range of parameters under which the turbine dimensions will fall are specified on the site notice and in the design flexibility opinion that accompanies this application.

2.6.6 Community Consultation

The Community Liaison Strategy for the Proposed Development was based around engaging with the local community in an open, honest and transparent manner with the aim to not only provide clear and understandable information but also to gain feedback to understand the views of the local community. This feedback and information was used to inform the design process.

Two Community Liaison Officers (CLO) were appointed as the points of contact for the Proposed Development and have been engaging with the local community. The purpose of the CLO's was to introduce the Proposed Development to the local community, engage and establish a line of dialogue with the local community and facilitate one-to-one consultation meetings, or group meetings where requested.

The CLO's and the Project Manager for the Proposed Development have spent significant time at one-to-one and group meetings in the local community. Contact details were provided for local residents to get in touch with any queries or comments regarding the design and assessment of the Proposed Development. The CLO's will continue to liaise with the community as the Project progresses.

In November 2022, the first newsletter was circulated to local residents, providing an overview of the Proposed Development. In April 2023, a community newsletter was circulated providing an update on progress of the proposal as well as the latest draft layout. The community was informed that additional information was available for viewing on the project website and advised that issues could be further discussed with the CLOs whose details were provided in the newsletter. In July 2023, a further community newsletter was issued which provided more details on how this project could benefit the community and advised that issues could be further discussed with the CLOs whose details were provided in the newsletter.

In October 2023, an information webinar was conducted for the Proposed Development, presenting an overview of the project and highlighting the need for renewable energy. The webinar also provided an opportunity for participants to ask questions about the Proposed Development.

In November 2023, a live virtual tour as well as a detailed brochure was issued and delivered to homes within 4km of the proposed turbines. A community clinic was held in late November to give stakeholders the opportunity to meet the Knockshanvo team and discuss any aspect of the Proposed Development.

As part of the Proposed Development, a Community Report has been prepared and is included at Appendix 2-4 in line with the advice of the draft Guidelines which states the following:

> *"In order to promote the observance of best practice, planning authorities should require applicants to prepare and submit a Community Report with their planning application and a condition on any subsequent planning permission should require developers to carry out the development in accordance with the approved Community Report".*

In summary, the report was prepared to record the consultation carried out with the local community in respect of the Proposed Development. The objective of the consultations was to ensure that the views and concerns of all were considered as part of the Proposed Development design and Environmental Impact Assessment (EIA) process.

This report outlines the consultation and community engagement initiatives undertaken by the applicant prior to the submission of the planning application. It also outlines the main issues identified during this process, how the final proposal reflects community consultation and the steps taken to ensure that the Proposed Development will be of enduring economic benefit to the communities concerned.

2.7 Cumulative Impact Assessment

The EIA Directive and associated guidance documents state that as well as considering any direct, indirect, secondary, transboundary, short, medium-, and long term, permanent and temporary, positive and negative effects of the project the description of likely significant effects should include an assessment of cumulative impacts that may arise. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project. The factors to be considered in relation to cumulative effects include population and human health, biodiversity, land, soil, water, air, climate, material assets, landscape, and cultural heritage as well as the interactions between these factors.

To gather a comprehensive view of cumulative impacts on these environmental considerations and to inform the EIAR process being undertaken by the consenting authority, each relevant chapter within this EIAR includes a cumulative impact assessment where appropriate.

The potential for cumulative impacts arising from other projects has therefore been fully considered within this EIAR.

2.7.1 Methodology for the Cumulative Assessment of Projects

The potential cumulative impact of the Proposed Development and combined with the potential impact of other projects has been carried out with the purpose of identifying what influence the Proposed Development will have on the surrounding environment when considered collectively with approved and existing projects and projects pending a decision from the planning authority and land-uses in the in the defined cumulative assessment study areas as set out in Table 2-12 below. The long list of planning applications which have been considered as part of the cumulative assessment are included in Appendix 2-2 of this EIAR.

The cumulative impact assessment of projects has three principle aims:

1. To establish the range and nature of existing and approved projects within the cumulative impact study area of the Proposed Development.
2. To summarise the relevant projects which have a potential to create cumulative impacts.
3. To identify the projects that hold the potential for cumulative interaction within the context of the Proposed Development and discard projects that will neither directly or indirectly contribute to cumulative impacts. (Note: this is done by individual experts with respect to their specialist area of expertise.)

Plans have also been considered and assessed for potential cumulative impacts throughout the EIAR where necessary (e.g. the Clare County Development Plan 2023-2029, the Southern Regional Assembly Regional Spatial & Economic Strategy, the National Planning Framework, the National Development Plan, National Biodiversity Action Plan, etc). Where specific plans have been assessed for potential cumulative effects, these are identified in the relevant chapters of this EIAR.

Assessment material for this cumulative impact assessment was compiled on the relevant projects within the vicinity of the Proposed Development. The material was gathered through a search of relevant online Planning Registers and EIA portal, reviews of relevant EIAR (or historical EIS) documents, planning application details and planning drawings, and served to identify past and future projects, their activities, and their environmental impacts.

2.7.2 Cumulative Study Area

Table 2-12 below details the cumulative assessment study areas, relative to the Proposed Development, which are considered in this EIAR. Following consultation with the EIAR team on each individual topic, the maximum geographical extent where there is potential for in combination effects/cumulative impact, and justification for this extent was established and is presented below.

Table 2-12: Cumulative Study Areas and Justifications

Individual Topic	Maximum Extent	Justification
Population & Human Health (including shadow flicker)	**Proposed Wind Farm Site:** Wind Farm Site Study Area for Population (Castlecrine, Kilseily, Cloontra, Cloghera DEDs) Shadow Flicker Study Area (10xRD buffer from proposed turbines) **Proposed Grid Connection:** Grid Connection Study Area for Population (50m from underground electrical cabling route) Consideration for the Population & Human Health cumulative extent is also given to the Air & Climate, Noise and Landscape & Visual (i.e., Residential Visual Amenity) Cumulative Study areas	For the assessment of cumulative shadow flicker, any other existing, permitted or proposed wind farms are considered where their ten times rotor diameter shadow flicker study area are located within the Shadow Flicker Study Area of 1.63km (ten times the rotor diameter from proposed turbines) for the Proposed Development. The Study Area for Population is identified in Section 5.3.1 in Chapter 5 as the Electoral Divisions where the Wind Farm Site is located. For the Grid Connection, the Study Area for Population is identified as 50m from the proposed underground electrical cabling route. Both the Wind Farm Site and Grid Connection Study Areas for Population identified are considered for cumulative effects on Population.
Biodiversity - Flora and Fauna	Subcatchments: Shannon (Lower) _SC-100, Owenogarney_10, Owenogarney_20	Using the precautionary approach and given the nature and scale of the Proposed Development, other projects within the same hydrological sub catchments are considered for the cumulative assessment. Using the precautionary approach and given the nature and scale of the Grid Connection, the geographical boundary for terrestrial ecological aspects, i.e. habitats, is 500m for cumulative assessment.
Biodiversity - Birds	25 km from the Wind Farm Site Boundary	A 25km radius from the Wind Farm Site equates to the average size of a county in Ireland. This radius will therefore allow for a cumulative impact assessment for bird populations identified to be important at a county level at the Wind Farm Site.
Biodiversity - Bats	10km from the Wind Farm Site Boundary	A 10km buffer of the Wind Farm Site Boundary is used as recommended for the cumulative assessment by NatureScot Guidelines 2021 (Section 4). Using the precautionary approach and given the nature and scale of the Grid Connection, the

Individual Topic	Maximum Extent	Justification
		geographical boundary for bats is 500m for cumulative assessment.
Land, Soils and Geology	EIAR Site Boundary	The geological cumulative study area will be contained within the EIAR Site Boundary due to the localised nature of the proposed construction works. There is no potential for significant cumulative effects with regard to soils and geology outside of the EIAR Site Boundary.
Hydrology & Hydrogeology	**Proposed Wind Farm:** Lower Shannon Catchment and North Shannon Estuary Catchment Area. **Proposed Grid Connection**: Within a 200m buffer zone of the proposed underground electrical cabling connection route.	Regional surface water catchments are used for cumulative impact assessment with regard large infrastructural developments such as wind farms, energy and public transport developments. The potential for cumulative effects for these developments likely exists on a regional catchment scale (i.e. significant works likely existing in several sub-basins). With the Proposed Development site being located in 2 no. surface water catchments, a separate cumulative assessment area has been delineated within each catchment. Due to the narrow nature of the underground electrical cabling route trench (~0.6m wide), a 200m buffer zone is an appropriate scale when considering potential cumulative effects on the water environment.
Air– Dust	0.5 km from EIAR Site Boundary	Given dust particles do not generally travel greater than 500m from source (Guidance on the Assessment of Mineral Dust Impacts for Planning, IAQM 2016) the geographical boundary for the cumulative dust impact is 500m from the EIAR Site Boundary (Wind Farm Site and Grid Connection).
Air - Air Quality	1 km from the EIAR Site Boundary	In line with the TII Publication Air Quality Assessment of Proposed National Roads – Standard PE-ENV-01107, December 2022, a geographical boundary of 1km from the EIAR Site Boundary (Wind Farm Site and Grid Connection) was used for cumulative air quality assessment.
Air and Climate - Climate	The Climate assessment has been considered on a national basis and not confined to a specific study area.	The Climate assessment has considered the cumulative effects of the Proposed Development with other developments on a national basis under the relevant national Sectoral Emissions Ceilings.
Noise and Vibration	**Proposed Wind Farm:** 25dB Contour **Proposed Grid Connection:**	The cumulative noise assessment approach is to model the full set of cumulative wind farms and predict 25 dB LA90 contours for each one. Where any 25 dB LA90 contour touches or overlaps the 35 dB LA90 contour from the Proposed Wind Farm, then that wind farm is included in the cumulative assessment.

Individual Topic	Maximum Extent	Justification
	200m from Grid Connection underground electrical cabling route.	Due to the narrow nature of the underground electrical cabling route trench (~0.6m wide), a 200m buffer zone is an appropriate scale when considering potential cumulative noise effects.
Archaeological, Architectural and Cultural Heritage	**Proposed Wind Farm:** 25km buffer from proposed turbines **Proposed Grid Connection:** 100m from Grid Connection	Cumulative impacts on setting are more likely to occur at the operational stage of the development (i.e. post-construction). In this regard in order to assess overall cumulative effects on archaeology and cultural heritage the Proposed Wind Farm is considered in the context of other developments, in particular other permitted and proposed wind farms within 25km of the Wind Farm Site. Direct effects for the Proposed Development are considered to be confined to within the EIAR Site Boundary and relate to construction effects. Due to the narrow nature of the underground electrical cabling route trench (~0.6m wide), a 100m buffer zone is an appropriate scale when considering potential cumulative cultural heritage effects.
Landscape & Visual	20km from proposed turbines for visual and landscape effects.	The Zone of Theoretical Visibility (previously referred to as Zone of Visual Influence) is a computer-aided procedure, which aims to predict from where the turbines might be visible. For blade tips in excess of 100m, a Zone of Theoretical Visibility radius of 20km is recommended (this is twice conventional thresholds and reflects greater visibility of higher structures), as noted in Appendix 3 of the Wind Energy Development Guidelines 2006.
Material Assets: Traffic & Transport	**Proposed Wind Farm:** 25km buffer from proposed turbines for large infrastructural developments such as wind farms, energy and public transport developments. Following that, the proposed transport route for each project is considered. **Proposed Grid Connection:** 200m from Grid Connection underground electrical cabling route.	The starting point for assessing the extent of the study area that should be included in the cumulative impact assessment is the guidance set out by TII (Traffic and Transport Assessment Guidelines, PE-PDV-02045, May 2014), which states as follows: Traffic and Transport Assessment should consider all committed developments within the vicinity of the site. This includes sites which have previously been granted planning permission, but which are yet to become operational as well as any planning applications that have been submitted but have yet to be determined. The assessment should also consider the potential impact of developments from a neighbouring local authority. Potential cross boundary movements may impact upon the operation of the local transport network and should, therefore, also be included within an assessment, where appropriate. For Wind Farm developments where traffic impacts are

Individual Topic	Maximum Extent	Justification
		generally temporary or short term, the extent of the network assessed with respect to traffic generated by the subject development includes the delivery routes to an extent where the traffic generated by the development increases traffic flows by 10% or more, in accordance with TII Guidelines. The assessment is generally undertaken at a link based level with a detailed junction capacity test undertaken at one or two junctions on the route. Developments to be included in the cumulative impact assessment should therefore include all committed or proposed developments that may generate traffic on the Wind Farm delivery routes. An assessment of all developments at varying stages in the planning process (from proposed to operational), were assessed for the potential for cumulative traffic effects with the Proposed Development using a 25 km geographical boundary.
Material Assets: **Telecoms, Aviation and Other Utilities**	The list of wind farms and other projects which were initially considered in cumulative assessment extended to 25 km from the EIAR Site Boundary.	The geographical boundary for the telecoms cumulative assessment is defined by the potential for other wind farm projects to interfere with broadcast signals that interact with the Proposed Wind Farm. The geographical boundary for the Aviation cumulative assessment is defined by the potential for other wind farm projects in combination with the proposed Wind Farm to interfere with Aviation.

To gather a comprehensive view of cumulative impacts within the cumulative study area and to inform the EIA process being undertaken by the consenting authority, each relevant chapter within the EIAR addresses the potential for cumulative effects where appropriate and within the context of their identified cumulative study area. A long list of projects considered (i.e. the largest cumulative study boundary of 25km list) across all disciplines in their cumulative impact assessment is included in Appendix 2-2.

2.7.2.1 Other Developments/Land Uses

The review of the relevant County Council planning registers documented relevant general development planning applications in the vicinity of the Proposed Development site, the majority of which relate to the provision and/or alteration of one-off rural housing and the provision of agricultural buildings. These applications and land uses have also been taken account in describing the baseline environment and in the relevant assessments.

Furthermore, the cumulative impact assessments carried out in each of the subsequent chapters of this EIAR consider all potential significant cumulative effects arising from all land uses in the vicinity of the Proposed Development. These include permitted and existing wind farms in the area, Solar Farms, ongoing agricultural practices/forestry practices, quarries and extractive industries, intensive production/

processing industries, large infrastructure projects and other EIAR projects. The OPW (www.floodinfo.ie) does not record the presence of any Arterial Drainage Schemes or Benefited Lands within the proposed Wind Farm site or along the Grid Connection route.

Overall, the Proposed Development has been designed to avoid and mitigate impacts on the environment and a suite of mitigation measures is set out within the EIAR. The mitigation measures set out in this EIAR will ensure that significant cumulative effects do not arise during the construction, operational or decommissioning phases of the Proposed Development. Additional detail in relation to the potential significant cumulative effects arising and, where appropriate, the specific suite of relevant mitigation measures proposed are set out within each of the relevant chapters of this EIAR.

2.7.2.2 Forestry Felling and Replanting

The Forest Service of the Department of Agriculture, Food & the Marine is Ireland's national forest authority. It is responsible for national forest policy, the promotion of private forestry, the administration of the forest consent system and forestry support schemes, forest health and protection, the control of felling, and the promotion of research in forestry and forest products.

The strategic goal of Ireland's forest policy is: *"To develop an internationally competitive and sustainable forest sector that provides a full range of economic, environmental and social benefits to society and which accords with the Forest Europe definition of sustainable forest management."* Benefits accruing from this policy are an increase in the sustainable production of forest biomass for use in domestic markets and for renewable energy production, and an increase in levels of carbon sequestration contributing towards climate change mitigation.

Areas of forestry proposed to be permanently clear felled for this wind farm are located in upland, marginal land locations. Some of these areas are of low forest productivity due to the nature of the environment and will be replaced by alternative afforestation which will be of higher forest productivity, corresponding to the latest afforestation guidelines, thus providing increased carbon sequestration. We highlight that the afforestation lands will be at such a remove as to not have the potential for in combination effects on the surrounding environment.

The clear-felling of trees in the State requires a felling licence. The legislative provisions governing such licences are set out in the Forestry Act 2014 (as amended) and the Forestry Regulations 2017 (as amended). The associated afforestation of alternative lands equivalent in area to lands being permanently clear-felled (in this case, for wind farm construction) can occur anywhere in the State and is also subject to licencing by the Forest Service ('afforestation licencing').

Section 11(d) of the Forestry Act requires the Minister, in the performance of his functions, to determine whether screening for EIA or AA is required and whether EIA or AA are required and, if so, to ensure that they are carried out. This obligation applies to both forestry felling and afforestation licencing. As the Board is aware section 34(13) and section 37H(6) of the Planning and Development Act 2000 (as amended) make clear that a person is not entitled to carry out a development merely because they have obtained planning permission, i.e. the planning permission does not obviate the need to have all other statutory and legal consents required to carry out the Proposed Development.

The requirements for afforestation licencing are set out in the Forestry Regulations 2017 - this includes consideration of EIA and AA. Further detail on considerations on afforestation is included in the Appendix 2-3 of this EIAR and details on afforestation licensing is also outlined in the Environmental Requirements for Afforestation (DAFM, 2016) which is also included in the Appendix of this EIAR. This ensures that afforestation takes place in a way that complies with environmental legislation and enhances the contribution new woodlands and forests can make to the environment and to the provision of ecosystem services, such as water protection and landscape enhancement.

It should be noted that the granting of all afforestation licences is subject to conditions, including environmental conditions, that must be adhered to.

2.7.2.3 Summary

The cumulative impact assessments carried out in each of the subsequent chapters of this EIAR consider all potential significant cumulative effects arising from relevant projects and/or plans and land uses within the cumulative study area and within the vicinity of the Proposed Development. Assessment material for this cumulative impact assessment was compiled on the relevant project and/or plans within the defined cumulative assessment study areas. The material was gathered through a search of relevant online Planning Registers, reviews of relevant EIAR (or historical EIS) documents, planning application details and planning drawings, and served to identify past and future projects, their activities and their environmental impacts. These include ongoing agricultural and forestry practices. Each relevant chapter within the EIAR addresses the potential for cumulative effects where appropriate and within the context of their identified cumulative study area. A long list of all applications considered by each of the different disciplines in their cumulative impact assessment are included in Appendix 2-2.

Overall, the Proposed Development has been designed to mitigate impacts on the environment and water, and a suite of mitigation measures is set out within the EIAR. Additional detail in relation to the potential significant cumulative effects arising and, where appropriate, the specific suite of relevant mitigation measures proposed are set out within each of the relevant chapters of this EIAR.