

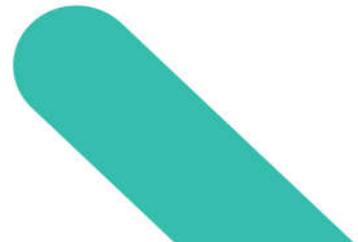
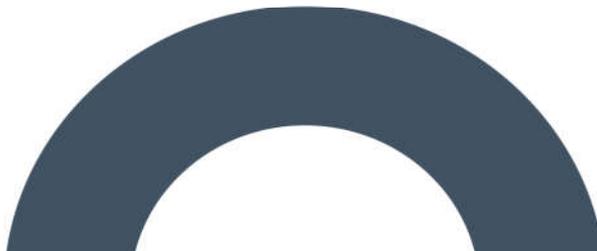
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Environmental Impact Assessment Report

Carrig Renewables Wind
Farm

Chapter 2 – Background

Tipperary Planning Authority - Inspection Purposes Only!



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DOCUMENT DETAILS

Client: **Carrig Renewable Energy Ltd**

Project Title: **Carrig Renewables Wind Farm**

Project Number: **211016**

Document Title: **Environmental Impact Assessment Report**

Document File Name: **Ch 2 Background F - 2023.09.20**

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| Rev | Status | Date | Author(s) | Approved By |
|-----|--------|------------|-----------|-------------|
| 01 | Draft | 18/10/2022 | RD | JW |
| 02 | Draft | 15/02/2023 | RD | JW |
| 03 | Draft | 28/04/2023 | RD | JW |
| 04 | Draft | 26/07/2023 | RD | JW |
| 05 | Draft | 29/08/2023 | RD | JW |
| 06 | Final | 20/09/2023 | RD | JW |

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1. BACKGROUND AND POLICY

This Chapter of the EIAR sets out the energy and climate change related policy and targets along with the strategic, regional, and local planning policies relevant to the Proposed Development. It also summarises EIA scoping and consultation undertaken and the cumulative impact assessment process.

1.1 Introduction

This Chapter of the EIAR presents the policies and targets which have been put in place at the various levels of Government both 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.

The Proposed Development comprises 7 no. wind turbines, and associated infrastructure in the townland of Sharragh, and adjacent townlands, in Co. Tipperary. The Proposed Development will also include a 38kV on-site substation and associated works, including underground 38kV cabling to connect to the national grid at the existing Dallow 110kV substation, in the townland of Clondallow, Co. Offaly. The planning application, relating to the elements of the Proposed Development in the functional area of Tipperary County Council, will be made to Tipperary County Council. A second planning application, comprising the elements of the Proposed Development in County Offaly (relating to the 38kV grid connection infrastructure and associated works) will be submitted to Offaly County Council.

The Proposed Development comprises the provision of a wind farm which will generate electricity for export onto the national grid. The need to decarbonise and reduce emissions has always been imperative, however, in recent years the urgency involved has become clearer to all stakeholders. The Climate Action Plan (CAP) first published by the Government in 2019, and updated in 2021 and 2023, sets out a roadmap to halve emissions by 2030 and reach net zero no later than 2050. Central to this is the set of measures set out to increase the proportion of renewable electricity to up to 80% by 2030. The CAP places front and centre the facts that without urgent action, global warming is likely to be more than 2°C above pre-industrial levels by 2060, with ‘*devastating*’ impacts on nature and ‘*irreversible changes to many ecosystems*’ arising.

Furthermore, the Programme for Government released in June 2020 also highlights that “*the reliable supply of safe, secure and clean energy is essential in order to deliver a phase-out of fossil fuels. We need to facilitate the increased electrification of heat and transport. This will create rapid growth in demand for electricity which must be planned and delivered in a cost-effective way.*”

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 current proposal represents the provision of a significant wind energy proposal and will contribute considerably towards Ireland satisfying its 2030 and 2050 renewable energy targets.

1.1.1 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. These resources are abundantly available in Ireland, yet only a fraction has been tapped so far¹.

A gradual shift towards increasing our use of renewable energy is no longer viable. There is an urgency now to ensure real changes takes place without delay. 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 climate action, energy security and price stability.

1.2

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 Report² 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 Éireann³, 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 (CO₂) concentrations reached 414 ppm in 2020 which is approximately a 50% increase compared to pre-industrial levels.
- Methane (CH₄) concentrations are at 1940 ppb - which is approximately a 170% increase compared to pre-industrial levels.
- Nitrous oxide (N₂O) 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;

¹ Source: Sustainable Energy Authority of Ireland (SEAI) website, www.seai.ie

² Source: Sustainable Energy Authority of Ireland (SEAI) website, www.seai.ie

³ 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)

³ Climate Status Report for Ireland 2020 (Environmental Protection Agency, Marine Institute, Met Éireann, August 2021)

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.

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.

1.2.1

International Climate 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 and held, in Paris, 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 CO₂ 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.

COP27 took place in Sharm el-Sheikh from the 6th of November 2022 to the 20th of November. The Conference of the Parties (COP) is a supreme decision-making body of the United Nations Framework Convention on Climate Change (UNFCCC). COP 27 centred around three major topics:

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

COP 27 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 COP 27 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 COP 27 are outlined below:

- **Phase down/out language:** In Glasgow last 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.

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:

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

The European Climate Law⁴ 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 NextGenerationEU 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 proposals⁵ 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.

1.2.2 National Climate Policy

Programme for Government (2020)

The Programme for Government 2020 (June 2020) 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.

⁴ 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') published in the Official Journal on 9 July 2021 and came into force on 29 July 2021.

⁵ Fit for 55: delivering the EU's 2030 Climate Target on the way to climate neutrality (July 2021)

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*". While it is noted this has been updated by the 2021 and Climate Action Plan, the Programme for Government sets out a range of measures to achieve this target which remain relevant, including:

- Finalise and publish the Wind Energy Guidelines.
- Continue EirGrid's programme 'Delivering a Secure, Sustainable Electricity System'.
- Strengthen the policy framework to incentivise electricity storage and interconnection.
- Produce a whole-of-government plan setting out how we will deliver at least 70% renewable electricity by 2030.

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 **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.

The Proposed Development represents a significant opportunity 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 consistent with binding emissions reduction targets at both a European and National level.

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 budgets⁶. The total emissions allowed under each budget are shown in Table 2-1 below.

⁶ Climate Change Advisory Council Carbon Budget Technical Report (October 2021) <https://www.gov.ie/en/publication/9af1b-carbon-budgets/>

Table 1-1 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 ₂ eq) | 295 | 200 | 151 |
| 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 ₂ eq reducing to 33.5 Mt CO ₂ eq in 2030, thus allowing compliance with the 51% emissions reduction target by 2030. | | | |

Report of the Joint Committee on Climate Action - Climate Change: A Cross-Party Consensus for Action (2019)

In March 2019, the Joint Committee on Climate Action Change released a report detailing a cross party consensus for action. The report in its introduction states that “Ireland’s performance in meeting international obligations has to date been poor” (refer to ‘Emissions Projections for Ireland’ below). The Report highlights on-going concern regarding emission projections and growing evidence that Ireland is off track in meeting its 2030 targets under the relevant the EU Directives.

The report states that the transformation of Ireland’s energy system will be required for the country to meet its future 2030 and 2050 GHG emission targets; specifically, in order to reach net zero emissions by 2050, Ireland will be required to fully decarbonise electricity generation. Therefore, there is a clear incentive for developing, and safeguarding, Ireland’s capacity in renewable energies and renewable electricity. Since this report was published, the Climate Action and Low Carbon Development (Amendment) Act 2021 has been enacted and there have been recent progress / future scenario assessments (e.g. EirGrid’s ‘All Island Generation Capacity Statement 2022 – 2031’ (October 2022)).

Given the clear concern that the county’s future emissions targets may be missed, it is crucial that projects such as the Proposed Development which can contribute in a meaningful manner towards climate change targets and which can be provided without significant adverse environmental effects arising are brought forward and supported with favourable consideration through the planning system and constructed.

Climate Action Plan 2023

The Climate Action Plan 2023 (‘the CAP’) launched in December 2022, sets out a roadmap to delivery on Ireland’s climate ambition. It aligns with the legally binding economy-wide carbon budgets and sectoral ceilings that were agreed by Government in July 2022 following the Climate Action and Low Carbon Development (Amendment) Act 2021. The Act commits Ireland to a legally binding target of net-zero greenhouse gas emissions no later than 2050, and a reduction of 51% by 2030.

At the time of publication (December 2022), the key sources of Ireland’s greenhouse gas (GHG) emissions include agriculture (33.3%), Transport (15.7%) and Energy (14.4%). Current and future actions require “the **full implementation** of measures from Climate Action Plans 2023, and further future Climate Action Plans.” (emphasis added)

CAP23 sets out indicative ranges of emissions reductions for each sector of the economy. Large-scale deployment of renewables - including onshore wind - is considered ‘critical’ to help decarbonise the

power sector. In relation to achieving the sectoral emissions ceiling for the electricity sector the CAP states:

“The proposed pathway includes a massive and rapid build-out of renewable generation capacity (wind and solar power generation technologies) and will also rely on the continued build-out and strengthening of grid infrastructure, the deployment of zero-emissions gas and improved electricity demand management. The decarbonisation of the electricity sector will be an immense challenge as we face a growing demand for electricity and a need to ensure security of supply, while providing support for the decarbonisation of other sectors through the electrification of transport and heat.”

In relation to the generation of electricity, the CAP emphasises the continued role of onshore wind in addressing the decarbonisation of the electricity sector. Under the CAP onshore wind targets of 6GW by 2025 and 9GW by 2030 is set out. An increase in the deployment of renewable energy generation, transformational policies, measures and actions are all called for in the CAP. Achieving further emissions reductions between now and 2030 requires a “*major step up*” across three key measures as follows:

- Accelerate and increase the deployment of renewable energy to replace fossil fuels;
- Deliver a flexible system to support renewables and demand;
- Manage electricity demand.

The CAP acknowledges that “*Ireland accommodates one of the highest global percentages of variable renewable generation on the grid. However, to maximise the output of renewables, the electricity system must increase its flexibility further.*”

- 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.

1.2.3

Climate Target Progress

Ireland’s Greenhouse Gas Emissions Projections (2021 – 2040), June 2022

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 2021–2040*’ 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 Ireland’s 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:

- 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 are 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.

1.3 Renewable Energy Policy and Targets

This section of the EIAR provides a breakdown of international and national renewable energy policy with regards to the Proposed Development. Under the Renewable Energy Policy and Targets, section, the following are discussed:

- EU Renewable Energy Policy;
- National Renewable Energy Policy;
- International and National Target Progress.

National policy has developed in line with European and International policies, targets and commitments, in that the importance and urgency of decarbonising the energy generation sector, the economy in general and reducing greenhouse gas emissions has become increasingly more apparent.

The Proposed Development complies with the nationally stated need to provide a greater amount of renewable energy onto the national grid and will further reduce the national reliance on fossil fuels for electricity generation.

1.3.1 European Renewable Energy Policy

The 2030 Climate and Energy Framework (adopted by EU leaders in October 2014) represents the current governance system underpinning EU renewable energy policy. The framework defines EU wide renewable energy targets, which builds on the 2020 climate and energy package:

- A binding commitment at EU level of at least 40% domestic Green House Gas reduction by 2030 compared to 1990;
- An EU wide, binding target of at least 27% renewable energy by 2030; and
- An indicative EU level target of at least 27% energy efficiency by 2030.

The European Commission published its proposal for an Effort Sharing Regulation on the allocation of national targets for greenhouse gas emissions for the period 2021-2030 in May 2018. The Effort Sharing legislation forms part of a set of policies and measures on climate change and energy that will help move Europe towards a low-carbon economy and increase its energy security. Under the current Regulation, the national targets will collectively deliver a reduction of around 10% in total EU emissions from the sectors covered by 2020 and of 30% by 2030, compared with 2005 levels.

The proposal implements EU commitments under the Paris Agreement on climate change (COP21), discussed above in Section 2.1.1.1, and marks an important milestone in the allocation to Member States of a package of climate targets formally adopted as part of the 2030 Climate and Energy Framework.

The revised Renewable Energy Directive (EU) 2018/2001 came into force in December 2018. It establishes a binding EU target of at least 32% for 2030 with a review for increasing this figure in 2023.

The revised Directive sets a 2030 target of 32.5% energy from renewable sources with a potential upward revision in 2023.

The European Green Deal was launched in December 2019 and proposes to increase the binding target of renewable sources in the EU's energy mix from 32% to **40% by 2030** via amendments to the Renewable Energy Directive (Renewable Energy Directive) as per the 'Fit for 55' package (July 2021)⁷. This supports Member States in making the most of their cost-effective renewable energy potential across sectors through a combination of sectoral targets and measures. It aims at making the energy system cleaner and more efficient by fostering renewables based electrification and, in sectors such as industry and transport where this is more difficult, it will promote the uptake of renewable fuels.

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.

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.

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

⁷ <https://www.consilium.europa.eu/en/policies/eu-plan-for-a-green-transition/>

➤ 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 2022 Annual Review (August 2022) that to reach “*demanding emissions reductions targets required under our climate targets, wind and solar resources will need to be harnessed to a greater and faster extent than previously considered*”. 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.

1.3.2 National Renewable Energy Policy

White Paper on ‘Ireland’s Transition to a Low Carbon Energy Future’ 2015 - 2030

On 12th May 2014, the Green Paper on Energy Policy in Ireland was launched which 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.”

National Energy Security Framework

More recently, 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 additional renewable energy generation, such as the Proposed Development, is vital in helping to secure the State's energy supplies and reduce reliance on imported fossil fuels.

1.3.3 Renewable Energy Target Progress

The SEAI *Energy in Ireland 2022* was published in December 2022 and set out the most recent updates to Ireland's progress towards its binding European and National renewable energy targets. Based on confirmed 2020 data, the report found that Ireland failed to meet the EU overall renewable energy supply target of 16% for 2020. Although Ireland committed to reducing its CO₂ emissions by 4.8% per annum from 2021- 2025 under the first carbon budget, energy related emissions were instead up by 5.4% in 2021.

The SEAI report illustrates (Figure 6) the summary of sectoral ceilings within the first two carbon budgets, over the periods 2021-2025 and 2026-2030 – copied below in Figure X

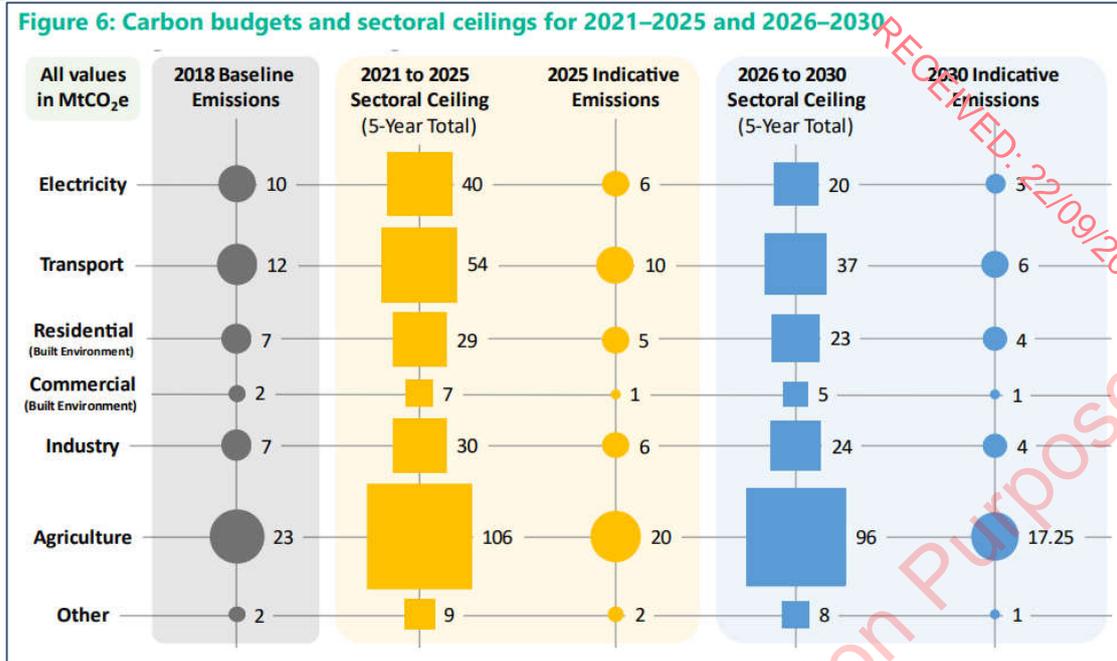


Figure 1-1: Carbon Budgets and Sectoral Ceilings for 2015-2025 and 2026-2030 (SEAI Energy in Ireland 2022)

A guideline trajectory the electricity sector’s emission ceiling in both carbon budgets is shown below in Figure 2-1. The data shows that “*electricity emissions were ‘on trajectory’ in 2021 (10.3 MtCO₂), despite the greater dependence on coal- and oil-fired electricity generation. However, our provisional estimate for electricity emissions in 2022 (10.8 MtCO₂) is higher than the guideline trajectory (9.0 MtCO₂e). This is due to an increase in electricity demand for 2022, not all of which could be supplied through renewable electricity, and the significant pace of annual reductions (-12.6% down on each previous year) needed to satisfy electricity’s sectoral emission ceiling.*”

The report confirms that wind accounted for 84% of renewable electricity generated in 2021 having 4,339MW of installed wind capacity in 2021. Up to September 2022, the report confirmed 78MW of added wind capacity.

Security of supply is a focus in the report, noting “*Ireland’s import dependency [of energy] has been increasing steadily, as the output from the Corrib gas field reduces faster than we are adding new renewable sources.*” In 2021 Ireland’s import dependency for energy was 80%; ranked eighth highest of the 27 Member States in terms of import dependency in 2020, the last year in which full data was available.

In order to reduce Irelands emissions there is a need to increase the renewable share of electricity, heat and transport. Up until 2020, renewable energy targets and results were set and calculated under the rules and methodologies of the first EU Renewable Energy Directive (REDI) however, from 2021 onwards, renewable results must be calculated under the REDII methodology. This updated Directive contains stricter requirements on the countability of biomass, biogas, and biofuels, as they relate to our renewable energy share (RES) results. The second EU Renewable Energy Directive (REDII) continues to promote the growth of renewable energy and set renewable energy share (RES) targets out to 2030. The changes in criteria and caps under REDII change how the RES results in 2021 are calculated compared to 2020, even where there is little to no change in the underlying renewable energy:

Table 1-2: National renewable energy targets

| | 2020 | RES 2020 Note | 2021* | Note | New 2030 Target |
|---|-------|--|-------|--|--------------------|
| Overall RES | 13.6% | Ireland failed to meet its target of 16% | 12.5% | Drop is almost entirely due to the shift in the REDII methodology | 34.1% |
| RES-T (Transport energy from renewable energy sources) | 10.2% | Ireland achieved its target of 10% | 4.3% | Drop is almost entirely due to the shift in REDII methodology. | 14% |
| RES-E (Electricity from renewable energy sources) | 39.1% | Ireland failed to meet its target of 40% | 36.4% | RES-E fell by 2.6% to 36.4% with over half this drop due to the shift in the REDII methodology and exclusion of some biomass; the remaining drop was due to reduced renewable electricity generation due to less wind in 2021. | 80% |
| RES-H (Heat from renewable energy sources) | 6.3% | Ireland failed to meet its target of 12% | 5.2% | This decrease in RES-H is mainly due to the shift in REDII methodology and the introduction of new sustainability and verification criteria for biomass fuels. | 24% |

*calculated under the new REDI methodology

REDII introduced a binding EU-wide target for overall RES of 32% in 2030 and requires Member States to set their national contributions to the EU-wide target. As per the National Energy and Climate Plan (NECP) 2021-2030, Ireland's overall RES target is 34.1% in 2030.

The second mandatory target set by the RED related to the renewable energy share in transport sector. This is commonly referred to as the RES-T target. The 2020 RES-T target was for at least 10% of energy consumed in road and rail transport to come from renewable sources. The actual RES-T achieved in 2020 was 10.2%, meaning that Ireland did meet this target. REDII sets a new RES-T target of 14% by 2030.

The current RES-E target to 2030 of 80% ensures that “renewable electricity continues to form the backbone of our renewable energy use for the coming decade and beyond.”

The Climate Advisory Council (CCAC) notes within their *2022 Annual Review* that urgent implementation of the measures identified in the ⁸CAP 2021 and identification of further new measures would be needed to reach national emission reduction targets in the electricity sector. The CACC stress the importance of reducing emissions in the electricity sector given the reliance of other sectors on the successful decarbonisation of the electricity sector.

EirGrid's recent analysis presented in ‘*All Island Generation Capacity Statement 2022 – 2031*’ (October 2022) found that the existing generation capacity is poor. Some generation capacity, due to close in September 2023, have submitted notices that they will not be available throughout 2022 and 2023. This

⁸ CAP23 was not yet published when the CCAC 2022 Annual Review was published

represents 590 MW (rated) that will be unavailable to the national grid. Furthermore, a sizable portion (364MW) of the forecasted new generation has failed to materialise, with developers terminating their capacity market contracts. These issues combined with existing social and economic growth driving electricity demand upwards means that the new generation capacity, especially renewable electricity, is urgently required. The scale of the capacity issue is clear, with significant capacity deficits forecasted across all scenarios for the remainder of the decade. In this context, the importance of wind energy becomes more apparent as it is estimated that 1 MW of wind capacity can provide enough electricity to supply approximately 650 homes⁹. Accordingly, the Proposed Development will serve to only contribute to meeting this increasing electricity demand.

With regard to the requirements needed to achieve the ambitions targets set in the Governments Climate Action Plan 2023, it is stated that:

“The electricity sector has a ceiling of 40 MtCO₂eq. for the first budgeting period (2021-2025), equating to an average of 8 MtCO₂eq. per annum. As emissions in 2021 were 9.98 MtCO₂eq., electricity will need to achieve average annual emissions of circa 7.5 MtCO₂eq. from 2022 to 2025.

At a time when the energy system is under severe pressure to ensure security of supply, amid projections of rapid electricity growth over the coming decade, the electricity sector has been set one of the smallest carbon budget allocations and the steepest decline (-75%) of all sectors. The scale of the challenge to meet the carbon budget programme is immense and requires policies to be moved from an ‘end of decade’ target trajectory to a ‘remaining carbon budget’ target. “

In relation to the scale of the challenge, the CAP calls for “a major acceleration and increase in onshore wind turbines across the country.” To accelerate renewable electricity generation a target of 9GW by 2030 of onshore wind is set, framed in the context of ensuring that renewable energy generation projects and associated infrastructure are considered to be “in the overriding public interest.”

EirGrid have also released their *Strategy 2020-2025: Transform the Power System for Future Generations* which is driven by climate change and the need to transform the electricity sector. Currently, the electricity grid can operate with up to 65% of renewable power but by 2030 this must increase to 95%. SEAI ‘s National Energy Projections to 2030 notes that wind energy deployment has “made the most significant contribution to RES-E to date. The historic build rate (2005-2010) was 180MW per year. Since 2010 the build rate has increased to an average of over 200MW per year. In 2017 the installed capacity increased by 335MW to just over 3.3GW total installed capacity.” Furthermore, “Post 2020, as electricity demand continues to grow at an anticipated rate of 3% per annum, increasing levels of deployment will be needed just to maintain the share achieved in 2020.”

Ireland faces significant challenges through efforts to meet its renewable energy targets, EU targets for renewable energy by 2030 and its commitment to transition to a low carbon economy by 2050. The proposed Carrig wind energy development will aid Ireland in addressing these challenges as well as addressing the country’s over-dependence on imported fossil fuels.

Through the production of renewable energy which will connect to the national grid the Proposed Development has the potential to be a major contributor to meeting the country’s binding targets.

⁹ <https://www.iwea.com/about-wind/faqs>

1.4

Strategic Planning Policy Context

1.4.1

Introduction

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

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 County Development Plan provisions are dealt with in detail in the County Development Plan sections below.

1.4.2

National Policy Context

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 development 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 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. 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 subject 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.

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'. The NPF aims to ensure that decisions that are made today meet our future needs in a sustainable manner.

"The manner in which we plan is important for the sustainability of our environment. Our planning system has influence across a wide range of sectors, both directly and indirectly and interacts with many common issues related to effective environmental management, including water services, landscape, flood risk planning, protection of designated sites and species, coastal and marine management, climate mitigation and adaptation, and land use change."

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 2.2 & 2.3). 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 (superseded by the then CAP 2019) 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 is in line with the aims and objectives of the NPF which seeks to transition to a low carbon economy.

The National Development Plan 2021 – 2030 (NDP) was published on 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 subject development, climate change. It is stated that the NDP 2021 – 2030 will be the *‘largest and greenest ever delivered in Ireland’*, and in this regard, the NDP highlights that extensive consultation was undertaken to ensure that the plan adequately supports the implementation of climate action measures. 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 CO₂ 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 is 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 an ambitious and an explicit driver for the deployment of new renewable generators such as the Proposed Development. The focus of investment in renewable energy infrastructure is to contribute to a long-term, sustainable and competitive energy future for Ireland.

1.4.3 Regional Policy Context

Southern Regional assembly

The Southern Regional Assembly (EMRA) was established in 2015, is part of the regional tier of governance in Ireland. It is primarily focused on the preparation and implementation of Regional Spatial and Economic Strategies (RSESs), integration of Local Economic and Community Plans (LECPs), management of EU Operational Programmes, EU project participation, implementation of national economic policy, and working with the National Oversight and Audit Commission.

The RSES seeks to achieve balanced regional development and full implementation of Project Ireland 2040 – the National Planning Framework. It will be implemented in partnership with local authorities and state agencies to deliver on this vision and build a cohesive and sustainable region.

“The RSES primarily aims to support the delivery of the programme for change set out in Project Ireland 2040, the National Planning Framework (NPF) and the National Development Plan 2018-27 (NDP). As the regional tier of the national planning process, it will ensure coordination between the City and County Development Plans (CCDP) and Local Enterprise and Community Plans (LECP) of the ten local authorities in the Region.”

The RSES is committed to the implementation of the Climate Action Plan 2019 (superseded by CAP 23) by playing its part in the development of wind, wave, tidal, solar, hydro, and bio energy. The ambition is reflected in the Regional Policy Objectives (RPO's) which sets out the key regional policies for the 12-year lifetime of the plan. RPO 87: Low Carbon Future, states:

“The RSES is committed to the implementation of the Climate Action Plan 2019 by playing its part in the development of renewable energy. This is clearly reflected in the Regional Policy Objectives (RPO's) which sets out the key regional policies for the lifetime of the plan, from 2018 – 2030”

With regards to climate change the RSES notes that:

“All global risks of climate change are risks to the Southern Region. The Southern Regional Assembly is committed to plays its role to put in place a high-level regional strategy for transition to a low carbon economy and society across all sectors.”

As noted and recognised by the RSES, Ireland and the EU are signatories to the Paris Agreement, a legally binding international agreement to restrict global temperature rises to below 2°C above pre-industrial levels, and to limit any increase to 1.5°C to significantly reduce the risks and impacts of climate change. It is further noted that *‘Ireland’s international commitments also extend to the UN’s Sustainable Development Goal 13, to ‘take action to combat climate change and its impacts.’*

Chapter 5 of the RSES notes detail’s the regions plans and objectives with regards to the environment. The RSES focus includes the following areas:

- Renewable Energy
- Energy Efficiency
- Sustainable transport
- Agriculture
- Forestry
- Climate resilience

The following Regional Policy Objectives have been listed with regards to climate change:

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 88 National Mitigation Plan and National Adaptation Framework: The RSES is committed to the implementation of the National Mitigation Plan and National Adaptation Framework: Planning for a Climate Resilient Ireland to enable the Region transition to a low carbon, climate resilient and environmentally sustainable economy. It is an objective to ensure effective co-ordination of climate action with the Climate Action Regional Offices and local authorities to implement the National Mitigation Plan and the National Adaptation Framework in the development and implementation of long-term solutions and extensive adaptation measures.

RPO 90 Regional Decarbonisation: It is an objective to develop a Regional Decarbonisation Plan to provide a framework for action on decarbonisation across all sectors. The Regional Decarbonisation Plan shall include existing and future targets for each sector and shall be prepared with key stakeholders, including the Climate Action Regional Offices, and shall identify the scope and role of the Plan, the requirements for SEA, AA and the timescale for its preparation. Implementation mechanisms and monitoring structures for the Plan should also be established.

The region has ample resources of wind, solar and ocean energy to provide a significant amount of renewable energy. Over the next ten years there is a predicted growth in electricity demand to align with the Climate Action Plan 2021. Extra generating capacity will be required to accommodate this demand. Wind energy is recognised as a major source of renewable energy generation capable of providing clean electricity to the grid and meeting the county's energy needs.

“The RSES recognises and supports the many opportunities for wind as a major source of renewable energy. Opportunities for both commercial and community wind energy projects should be harnessed, having regard to the requirements of DoHPLG Guidelines on Wind Energy. Wind Energy technology has an important role in delivering value and clean electricity for Ireland.”

The following Regional Policy Objectives have been listed with regard to renewable energy:

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 97 Power Stations and Renewable Energy: It is an objective to support the sustainable technology upgrading and conversion of power stations in the Region to increase capacity for use of energy efficient and renewable energy sources.

RPO 98 Regional Renewable Energy Strategy: It is an objective to support the development of a Regional Renewable Energy Strategy with relevant stakeholders.

RPO 99 Renewable Wind Energy: It is an objective to support the sustainable development of renewable wind energy (on shore and off shore) 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.

Regional Policy Objectives 95 – 100 reflect the strong support for renewable energy throughout the RSES. The Proposed Development will generate renewable electricity contributing to the objectives of the RSES. The Proposed Development is therefore in alignment with policy at a regional level.

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:

RPO 219 New Energy Infrastructure: New Energy Infrastructure It is an objective to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers (subject to appropriate environmental assessment and the planning process) to ensure the energy needs of future population and economic expansion within designated growth areas and across the Region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs.

RPO 220 Integrated Single Electricity Market (I-SEM): It is an objective to support the Integrated Single Electricity Market (I-SEM) as a key priority for the Region and seek the sustainable development and reinforcement of the energy grid including grid connections, transboundary networks into and through the Region and between all adjacent Regions subject to appropriate environmental assessment and planning processes

RPO 221 Renewable Energy Generation and Transmission Network: a. Local Authority City and County Development Plans shall support the sustainable development of renewable energy generation and demand centres such as data centres which can be serviced with a

renewable energy source (subject to appropriate environmental assessment and the planning process) to spatially suitable locations to ensure efficient use of the existing transmission network; b. The RSES supports strengthened and sustainable local/community renewable energy networks, micro renewable generation, climate smart countryside projects and connections from such initiatives to the grid. The potential for sustainable local/community energy projects and micro generation to both mitigate climate change and to reduce fuel poverty is also supported, The RSES supports the Southern Region as a Carbon Neutral Energy Region.

RPO 222 Electricity Infrastructure: It is an objective to support the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate 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) to serve the existing and future needs of the Region and strengthen all-island energy infrastructure and interconnection capacity.

In utilising the wind energy resource at Carrig, the Proposed Development will directly contribute to the achievement of a sustainable, secure and resilient energy supply in a manner consistent with the proper planning and sustainable development of the area/region.

Eastern and Midland Regional Assembly

The Eastern and Midland Regional Assembly (EMRA) was established on 1st January 2015, is part of the regional tier of governance in Ireland. It is primarily focused on the preparation and implementation of Regional Spatial and Economic Strategies (RSESs), integration of Local Economic and Community Plans (LECPs), management of EU Operational Programmes, EU project participation, implementation of national economic policy, and working with the National Oversight and Audit Commission.

The RSES acknowledges that *“An increase in electricity demand is likely resulting not only from increased population and economic development but also resulting from a move away from the use of fossil fuels... In order to ensure security of electricity supply the Strategy must address this increased demand for electricity in such a way as to strike a balance between addressing the need for a significant shift towards renewable energy and enabling resources to be harness in a manner consistent with the principles of proper planning and sustainable development.”*

The Regional Policy Objectives for Decarbonising the Energy Sector are as follows:

RPO 7.35:

EMRA shall, in conjunction with local authorities in the Region, identify Strategic Energy Zones as areas suitable for larger energy generating projects, the role of community and micro energy production in urban and rural settings and the potential for renewable energy within industrial areas. The Strategic Energy Zones for the Region will ensure all environmental constraints are addressed in the analysis. A regional landscape strategy could be developed to support delivery of projects within the Strategic Energy Zones.

RPO 7.36:

Planning policy at local authority level shall reflect and adhere to the principles and planning guidance set out in 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 on Guidelines for Community Engagement and any other relevant guidance which may be issued in relation to sustainable energy provisions.

RPO 7.37:

A bioeconomy plan for the Region should be developed that outlines the capacity of the Region to supply the range of bioenergy resources required for the fuel mix as well as the current and projected consumption requirements for growth in this market.

RPO 7.38:

Local authorities shall consider the use of heat mapping to support developments which deliver energy efficiency and the recovery of energy that would otherwise be wasted. A feasibility assessment for district heating in local authority areas shall be carried out and statutory planning documents shall identify local waste heat sources.

The resilience of critical infrastructure (CI) is also addressed in Chapter 7 of the RSES. CI includes electricity networks. It is noted that “*distributed renewable energy sources can contribute to local energy system resilience. For example, during both Storm Ophelia and Storm Emma, when the operation of many of Ireland’s infrastructures was challenged, wind energy maintained output throughout the adverse conditions and contributed to maintaining local supply and post event recovery to normal operation.*”

Associated Regional Policy Objective RPO 7.43 states:

“Climate Action Regional Offices and local authorities should consider the identification of critical infrastructure within their functional areas, and particularly of the interdependencies between different types of sectoral infrastructure, as a first step in ‘future-proofing’ services and to help to inform longerterm adaptation planning and investment priorities.”

The RSES acknowledges the importance of developing a safe, secure and reliable electricity grid network. Section 10.3, Energy of Chapter 10: Infrastructure calls for new infrastructural transmission projects to be encouraged to meet projected demand levels and to enable energy service providers to deliver their statutory function. The RSES includes ‘*guiding principles*’ for local authority development plans to ensure that the region’s electricity grid network is managed and developed sustainably. The provisions of grid infrastructure should be facilitated based on the following principles:

- *The development is required in order to facilitate the provision or retention of significant economic or social infrastructure.*
- *The route proposed has been identified with due consideration for social, environmental and cultural impacts and address issues of climate resilience, biodiversity, impact on soils and water quality.*
- *The design is such that it will achieve least environmental impact.*
- *Where impacts are inevitable mitigation features have been included.*
- *Where it can be shown that the proposed development is consistent with international best practice with regard to materials and technologies and that it will ensure a safe, secure, reliable, economic and efficient high-quality network.*
- *In considering facilities of this nature that traverse a number of counties or that traverse one county in order to serve another, planning authorities should consider the proposal in light of the criteria outlined above. It is important that planning authorities are engaged in early consultation and discussion with the relevant Transmission System Operator.*
- *Corridors for energy transmission or pipelines should avoid creating sterile lands proximate to key public transport corridors, particularly rail routes, and in built up urban areas.*
- *Regard for any National or Regional Landscape/Seascape Character Assessment.*

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:

RPO 10.19: Energy Infrastructure

Support roll-out of the Smart Grids and Smart Cities Action Plan enabling new connections, grid balancing, energy management and micro grid development.

RPO 10.20: Energy Infrastructure

Support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy. This Includes the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity

and gas transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process.

RPO 10.22: Energy Infrastructure

Support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and transmission/ distribution of a renewable energy focused generation across the major demand centres to support an island population of 8 million people, including:

Facilitating interconnection to Europe, particularly the ‘Celtic Interconnector’ to France and further interconnection to Europe/the UK in the longer term

- Facilitating interconnection to Northern Ireland, particularly the ‘North-South Interconnector and further co-operation with relevant departments in Northern Ireland to enhance interconnection across the island in the longer term.
- Facilitating transboundary networks into and through the Region and between all adjacent Regions to ensure the RSES can be delivered in a sustainable and timely manner and that capacity is available at local, regional and national scale to meet future needs.
- Facilitate the delivery of the necessary integration of transmission network requirements to allow linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner.
- Support the safeguarding of strategic energy corridors from encroachment by other developments that could compromise the delivery of energy networks.

RPO 10.24: Energy infrastructure

Support the sustainable development of Ireland’s offshore renewable energy resources in accordance with the Department of Communications, Energy and Natural Resources ‘Offshore Renewable Energy Development Plan’ and any successor thereof including any associated domestic and international grid connection enhancements.

The RSES sets out the expectations for local authorities in respect to their role in harnessing renewables-focused energy generation system.

“Local authorities should harness the potential of renewable energy in the Region across the technological spectrum from wind and solar to biomass ... The provision of infrastructure should be supported in order to facilitate a more distributed, renewables-focused energy generation system, harnessing both on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting sites of optimal energy production to the major sources of demand.”

In relation to wind energy the RSES recognises and supports the many opportunities for onshore wind as a major source of renewable energy. It is noted that ‘opportunities for both commercial and community wind energy projects should be harnessed, having regard to the requirements of DoHPLG Guidelines on Wind Energy’. It is recognised that wind energy, with current and future developments technology, has an important role in delivering value and clean electricity for Ireland.

The Proposed Development will contribute to the achievement of a sustainable, secure and resilient energy supply in a manner consistent with the proper planning and sustainable development of the region.

1.4.4

Local Policy Context

The Proposed Development is located in Co. Tipperary and Co. Offaly. The proposed wind turbines and associated infrastructure are located in Co. Tipperary, along with the new 38kV on-site substation. The proposed grid connection crosses into Co. Offaly for connection to the national grid at the existing Dallow 110kV substation, located 8.4km from the wind farm site. As such, the relevant policies set out in the Development Plans for both counties are considered below.

Tipperary County Development Plan 2022 – 2028

The Tipperary County Development Plan 2022-2028 (TCDP) came into effect on the 22nd of August 2022. The TCDP incorporates the aims, objectives, policies and guidelines to provide for the proper planning and sustainable development of County Tipperary. The TCDP outlines the ambition for the development of the county's renewable energy supply. The Council acknowledges the importance of renewable energy in reducing anthropogenic greenhouse gas emissions and the contribution of renewable energy in achieving national and EU target net zero greenhouse gas emissions by 2050. This target is underpinned by the core ambitions of the TDCP. The TDCP states:

“Renewable energy and the bioeconomy are important aspects of our diverse and vibrant rural economy, with synergies between and across other areas such as climate action, job creation and amenity development. It is understood that by supporting a climate resilient, biodiversity-rich, environmentally-sustainable and climate-neutral economy we can make optimum use of our available renewable energy resources. The Council, with the support of the Tipperary Energy Agency and through the Core Strategy of this Plan, has strongly committed to the support of renewable energy as part of sustainable economic growth in line with the National Renewable Energy Action Plan of the Government”

Chapter 10 of the TCDP, Renewable Energy and Bioeconomy, provides renewable energy targets out as far as 2028. The TCDP has set a target of 600MW of wind energy to be constructed and operational by 2028. The county currently has 475MW of wind energy installed. The proposed development will contribute substantially to meeting this target.

Chapter 10 also includes the following policies and objectives in relation to the development of renewable energy in the county. The planning policy relevant to the Proposed Development include, *inter alia*:

Policy 10 – 1: *Support and facilitate new development that will produce energy from local renewable sources such as hydro, bioenergy, wind, solar, geothermal and landfill gas, including renewable and non-renewable enabling plant, subject to compliance with normal planning and environmental criteria, in co-operation with statutory and other energy providers. The provisions of the Tipperary Renewable Energy Strategy (and any review thereof) as set out in Volume 3, will apply to new development.*

Policy 10 – 2: *Support and facilitate disruptive technologies and innovations, including natural carbon capture systems that will support the generation of energy from local renewable energy sources and support energy storage and carbon capture, subject to compliance with normal planning and environmental criteria, in co-operation with statutory and other energy providers.*

Objective 10-A: *Support the Climate Action Plan (DECC, 2019) as it relates to renewable energy production, having consideration to the strategic importance and potential benefits of renewable energy investment to rural communities.*

Objective 10-C: *To continue to support renewable energy development and to maintain a positive framework for development through the review of the Renewable Energy Strategy over the lifetime of the Plan.*

Tipperary Renewable Energy Strategy 2016

The Tipperary Renewable Energy Strategy (RES) was published in 2016 and is incorporated into the TCDP 2022-2028 as appendix 2 of volume 3. The RES has been developed as a planning framework to support the implementation of renewable energy in the county. As the RES was published in 2016, it was developed to meet the policies and objectives of the North Tipperary County Development Plan

2010 (as varied) and the South Tipperary County Development Plan 2009 (as varied). There is an objective in the TCDP 2022-2028 to review the RES over the lifetime of the plan (see objective 10-C above). Although the RES is based on outdated national energy policy and targets, it will remain in effect until the review and update take place.

In relation to wind energy policy, the WES, includes the following relevant objectives:

TWIND 1: *It is the policy of the Council to support, in principle and in appropriate locations, the development of wind energy resources in county Tipperary. The Council recognises that there is a need to promote the development of 'green electricity' resources and to reduce fossil fuel dependency and greenhouse gas emissions in order to address the global issue of climate change, and to comply with European and International policies with regards to renewable and sustainable energy resources.*

TWIND 2: *It is the policy of the Council to ensure that all wind energy development in the county complies with the provisions of all applicable government legislation and guidance on wind energy development and renewable energy resources (and any review thereof).*

TWIND 3: *It is the policy of the Council that when assessing planning applications for wind energy development, to require compliance with the Wind Energy Development Guidelines, Guidelines for Planning Authorities (DoEHLG) 2006 or any revision thereof, and the policy and objectives of the County Development Plan (as Varied).*

TWIND 5: *It is the policy of the Council that when granting planning permission for wind energy developments, to have regard to the proper planning and sustainable development of the area and in particular Chapter 7 of the Wind Energy Development Guidelines, Guidelines for Planning Authorities (DoEHLG) 2006 or any revision thereof. In addition, the Council may include conditions regarding: a) Surface water management plans; b) Environmental management plans for all phases of the development; c) Limiting construction to a certain part of the year; d) Duration of the planning permission and eventual decommissioning of the development; e) Landscaping; f) Surveys on birds and relevant protected species and other baseline environmental data collection; and, g) Ongoing monitoring during operation of the wind energy development h) Monitoring during construction phase i) Protection of habitats and species of conservation concern j) Protection of designated sites.*

The RES includes a Wind Energy Strategy (WES), which is informed by the by a Landscape character assessment. The WES identifies areas where wind energy development is 'open for consideration' and where wind energy developments are considered 'unsuitable'. The WES also includes wind energy planning policy and development management standards to manage wind energy development.

While the WES contains strong policy support for wind energy in principle, the proposed wind farm site is located in an area deemed to be 'unsuitable for new wind energy development'. Areas 'unsuitable for new wind energy development' are assessed in accordance with the following parameters:

'Areas 'Unsuitable for Further Development' – new wind energy development in these areas is not permitted. These areas have a special or unique landscape character where the main objective is conservation. Where there are existing wind energy developments in these areas, their repowering may be considered appropriate. Any impact on the environment must be low and subject to proper planning and sustainable development, and the guidelines set out in this strategy.'

Tipperary County Council may consider wind energy proposals in areas deemed to be 'unsuitable for further wind energy development' on a case-by-case basis in the following circumstances:

- a) Where there are existing wind farms in these areas, proposals for 'repowering' may be considered appropriate, on a case-by-case basis. Repowering is the process of replacing older turbines with newer ones that either have a greater capacity or more efficiency

which results in a net increase of power generated. Repowering may also seek to extend the overall lifespan of the development. Proposals for repowering, shall not result in a net increase in turbines, and it shall be demonstrated that there is no adverse impact on the receiving environment.

- b) In areas located outside of Natura 2000 sites, proposals for an extension to an existing wind farm (of up to 20% in terms of permitted numbers of turbines or in cases where 5 or less turbines are permitted in a wind farm, one additional turbine) will be considered. The proposal will be required to demonstrate that the additional turbines may be served by the infrastructure serving the existing development.
- c) In areas located outside of Natura 2000 sites, where an existing wind farm has been permitted and this permission expires over the lifetime of this Wind Energy Strategy, a revised proposal will be considered within the planning unit of the previously permitted development, and where it is demonstrated that there is no net increase in turbines.

While the local policy that applies to the site as set out in the RES is unfavourable to new wind energy development, the assessments carried out as part of this EIAR demonstrate that the site is capable of accommodating the Proposed Development without significant negative effects. It is submitted that while the RES provides appropriate guidance for the siting of new renewable energy development at a high level, it does not take into account many of the project level constraints that need to be considered as part of a project such as this. As such, an exercise was carried out in order to identify viable areas for new wind energy development throughout the county, having regard to the various project level constraints mentioned. This exercise determines that much of the County is not viable for new wind energy development due in large part to the proximity to housing. This exercise made clear that the actual viable area is much less than what is identified as 'Areas Open for Consideration for New Wind Energy Development' in the RES and would not provide enough land to accommodate the additional renewable energy required to meet County's renewable energy targets.

A Planning Rationale Report, including the constraints exercise referred to above, is provided under separate cover. The main conclusions of the report are as follows:

- The Proposed Development is aligned with the latest European & National Energy Policy, including REPowerEU, CAP 23 and the National Planning Framework.
- Tipperary's Renewable Energy Strategy (2016) was adopted prior to the publication of a large quantum of significant renewable energy policy documents and is therefore based on outdated national targets and objectives.
- When project level constraints are considered, the quantum of land zoned 'Open to Consideration' is not sufficient to achieve local and national targets.
- The Proposed Development adheres to the recommendations and guidance outlined in the 'Draft Revised Wind Energy Development Guidelines (2019) and the 'Best Practice Guidelines for the Irish Wind Energy Industry' (Irish Wind Energy Association, 2012).

Compliance with Tipperary County Development Plan

With regard to the policy of the TCDP 2022-2028, the Proposed Development will progress the Development Plan's target of increasing the county's wind energy capacity to 600MW, enabling the county to reach its ambition to become a '*climate resilient, biodiversity-rich, environmentally-sustainable and climate-neutral economy*'. Although located in an unfavourably zoned area, there is a strong site location justification and rationale for the project when national policy, guidelines, industry best practices and project level constraints are considered. The full planning rationale for the Proposed Development is set out in the Planning Rationale Report accompanying the planning application.

Offaly County Development Plan 2021-2027

The Offaly County Development Plan 2021-2027 was adopted on 10th September 2021 and came in to effect 20th October 2021. The Offaly County Development Plan 2021-2027 (OCDP) (2021) outlines the overall strategy for the proper planning and sustainable development of County Offaly. The CDP and accompanying documents (including the Wind Energy Strategy) set out the key policy context for the development of Offaly County. The Proposed Wind Farm Development will be facilitated by an underground grid connection cable and connection to the national electricity grid in the functional area of Co. Offaly. As such it is necessary to consider the CDP policies and objectives relating to the provision of electricity transmission infrastructure.

The CDP is supportive of the transition from fossil fuel-based energy to renewable energy and acknowledges that this transition will need to be underpinned by a strong electricity transmission network. The CDP states that the council *“recognises that essential future upgrades are required to the electricity grid in the midlands as outlined in EirGrids Tomorrow’s Energy Scenarios 2019 System Needs Assessment and will support EirGrid in future Programmes identifying grid solutions, in both infrastructural and technological terms, in order to facilitate the electricity targets, set out in the Government’s Climate Action Plan 2019 and the National Energy and Climate Plan 2021-2030”*

With regards policies for electricity transmission and distribution **Policy CAEP-01** states *“It is Council policy to support and facilitate the development, reinforcement, renewal and expansion of the electricity transmission and distribution grid, including the development of new lines, pylons and substations as required to provide for the future physical and economic development of Offaly.”*

In addition, the following policies are relevant:

- **Policy CAEP-04:** It is Council policy to support EirGrid’s Implementation Plan 2017 – 2022 and Transmission Development Plan 2019 and any subsequent plans prepared during the plan period that facilitate the timely delivery of major investment projects subject to appropriate environmental assessment and the outcome of the planning process.
- **Policy CAEP-05:** It is Council policy to support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and transmission/distribution of a renewable energy focused generation across the major demand centres. This includes:
 - *Facilitating trans-boundary networks into and through the County and Region to ensure the Regional Spatial and Economic Strategy can be delivered in a sustainable and timely manner;*
 - *Facilitate the delivery of the necessary integration of transmission network requirements to allow linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner; and*
 - *Support the safeguarding of strategic energy corridors from encroachment by other developments that could compromise the delivery of energy networks.*

The strengthening of the electricity network is part of the CDPs wider goal of moving a low-carbon society and includes numerous policies to support this transition, including, inter alia:

- **Policy CAEP-10:** It is Council policy to support local, regional, national and international initiatives for climate adaptation and mitigation and to limit emissions of greenhouse gases through energy efficiency and the development of renewable energy sources which make use of all natural resources, including publicly owned lands, in an environmentally acceptable manner.

- **Policy CAEP-11:** It is Council policy to support the transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050, by way of reducing greenhouse gases, increasing renewable energy, and improving energy efficiency.
- **Policy CAEP-25:** It is Council policy to encourage and facilitate the production of energy from renewable sources, such as from bioenergy, waste material, solar, hydro, geothermal and wind energy, subject to proper planning and environmental considerations.
- **Policy CAEP-37:** “It is Council policy to recognise the importance of wind energy as a renewable energy source which can play a vital role in achieving national targets in relation to reductions in fossil fuel dependency and therefore greenhouse gas emissions.”
- **Objective CAEO-03:** “It is an objective of the Council to achieve a reasonable balance between responding to government policy on renewable energy and in enabling the wind energy resources of the county to be harnessed in an environmentally sustainable manner.”
- **Objective CAEO-04:** “It is an objective of the Council to ensure the security of energy supply by supporting the potential of the wind energy (and other renewable) resources of the County in a manner that is consistent with proper planning and sustainable development of the area.”

Offaly Wind Energy Strategy 2021-2027

The Offaly Wind Energy Strategy (WES) 2021-2027 was prepared with the overall aim to facilitate the development of wind farms to contribute towards International, European, National and Regional climate targets. The WES acknowledges that wind energy developments are large infrastructure projects, which often have effects across county boundaries. As such, the county development plans and wind energy policies of adjoining counties are considered within the Offaly WES. While the proposed wind turbines are entirely located in Co. Tipperary, the grid infrastructure, required to electrify the wind turbines, is located in Co. Offaly. It is therefore important to consider the Offaly WES in the context of grid infrastructure and the facilitation of wind energy developments across county boundaries.

The strategy, in relation to electricity grid infrastructure in the county, states the following:

“Offaly has an excellent electricity transmission network with no area in the county being over 15 km of an electricity transmission line.... in order to facilitate the expansion in electricity generation installation from wind farms and other sources, the grid in the midlands may itself require development and expansion. It is therefore prudent for the future development and electricity and wind farms in County Offaly that these strategic pieces of infrastructure are protected from inappropriate development in their immediate environs and that their scope for development is maintained.”

The WES also refers to the National Planning Framework (NPF) 2018 in the context of National strategy Outcome (NSO) 8, which relates to ensuring “*Transition to a Low Carbon and Climate Resilient Society*”. National Policy Objective 55 seeks 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.*” The Proposed Development will support the aims of these policies in achieving a low carbon economy by 20250.

Compliance with the Offaly County Development Plan

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. Consequently, the Proposed Development will further contribute to decarbonisation of energy and will further contribute to the national, regional and local renewable energy and emissions reduction targets. Furthermore, it is the policy of the Offaly County Council to support the transmission and distribution of renewable electricity. Therefore, the Proposed Development is considered compliant with the relevant provisions of the Offaly County Development Plan 2021-2027.

Other Relevant Material Considerations

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 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 2006 Guidelines remain the relevant guidelines in place, at the time of lodgement, 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.

Draft Revised Wind Energy Guidelines 2019

The Department of Housing, Planning and Local Government published the *Draft Wind Energy Guidelines* (referred to as the Draft Guidelines) in December 2019. The Draft Guidelines were open to public submissions up until the 19th of February 2020. These submissions are now being considered by the Department. At time of writing, the guidelines in place remain the 2006 Guidelines pending the Department publishing a final version of any revised guidance.

The Draft Revised Guidelines clearly sets out the recognition 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 Revised 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 2019 Draft Revised 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 project has taken account of the "preferred draft approach" as articulated by the Department in June 2017, 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).

The submission period for the Draft Revised Guidelines closed in February 2020. Under the consultation it was evident that a number of submissions made appeared to have observations surrounding similar points, these include but are not limited to themes such as 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 Revised Guidelines were unworkable, as such it was considered that should the noise measures be implemented there is the potential for an on-going impact on the development of onshore wind energy in the future. 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 which have been put in place surrounding 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'*. While the overall provision is possible a number of clarifications were sought to ensure that this provision could be implemented in a reasonable manner.

At time of writing the Draft Guidelines are not yet finalised and are not in force, with the relevant guidelines for the purposes of section 28 of the Planning and Development Act 2000 (as amended) remaining 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. Towards this end on the basis of the details available from the Draft Guidelines it is anticipated that the Wind Farm Site 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 Wind Farm Site 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 residential properties and furthermore detailed community consultations have been carried out.

DoHPCLG Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change 2017

In July 2017, the (then) Department of Housing, Planning, Community and Local Government (DoHPCLG) published *'Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change'* under Section 28 of the Planning and Development Act 2000 (as amended). Planning authorities are obliged to have regard to guidelines issued pursuant to Section 28 in the performance of their functions under the Planning and Development Act 2000 (as amended).

The guidelines state that it is a specific planning policy requirement under Section 28(1C) of the Act, that in making a development plan with policies or objectives that relate to wind energy developments that a Planning Authority must:

- “Ensure that overall national policy on renewable energy as contained in documents such as the Government’s ‘White Paper on Energy Policy - Ireland’s Transition to a Low Carbon Future’, as well as the ‘National Renewable Energy Action Plan’, the ‘Strategy for Renewable Energy’ and the ‘National Mitigation Plan’, is acknowledged and documented in the relevant development plan or local area plan;
- Indicate how the implementation of the relevant development plan or local area plan over its effective period will contribute to realising overall national targets on renewable energy and climate change mitigation, and in particular wind energy production and the potential wind energy resource (in megawatts); and
- Demonstrate detailed compliance with item number (2) above in any proposal by them to introduce or vary a mandatory setback distance or distances for wind turbines from specified land uses or classes of land use into their development plan or local area plan. Such a proposal shall be subject to environmental assessment requirements, for example under the SEA and Habitats Directives. It shall also be a material consideration in SEA, when taking into account likely significant effects on

climatic factors, in addition to other factors such as landscape and air, if a mandatory setback or variation to a mandatory setback proposed by a planning authority in a development plan or local area plan would create a significant limitation or constraint on renewable energy projects, including wind turbines, within the administrative area of the plan.”

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 sets out the four key aspects of the *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.

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 Commitments 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.

DCCAE Code of Practice for Wind Energy Development Ireland – Guidelines for Community Engagement 2016

In December 2016, the Department of Communications, Climate Action and Environment (DCCAE) issued a Code of Practice for wind energy development in relation to community engagement. The Code of Good Practice is intended to ensure that wind energy development in Ireland is undertaken in adherence with the best industry practices, and with the full engagement of local communities. Community engagement is required through the different stages of a project, from the initial scoping, feasibility and concept stages, right through construction to the operational phase. The methods of engagement should reflect the nature of the project and the potential level of impact that it could have on a community. The guidelines advise that ignoring or poorly managing community concerns can have long-term negative impacts on a community's economic, environmental or social situation. Not involving communities in the project development process has the potential to impose costly time and financial delays for projects or prevent the realisation of projects in their entirety.

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 Enduring Connection Policy Stage 1 (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. Applicants for new connection capacity under ECP-1 was published in August 2019 and under ECP-2 published in September 2020. The ECP-2 framework established a batch application window of the month of September for three years. The final application window under ECP-2 in September 2022 is the most recent grid connection window.

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.

Renewable Energy Support Scheme

The 2019 Climate Action Plan (CAP) is the Government's plan to give Irish people a cleaner, safer and more sustainable future. The 2019 CAP set out actions across every sector which will ensure we meet our future climate commitments. A key part of the 2019 CAP was a move to 70% renewable electricity by 2030, a measure which will be driven by the introduction of the Renewable Electricity Support Scheme (‘RESS’). RESS also plays a pivotal role in the ambitions of the Programme for Government and the 2021 Climate Action Plan in which Ireland's renewable energy target has increased to at least 80% by 2030.

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.



The Auction Scheme and the ECP framework has now been established and is operational and will facilitate and provide a pathway to realise renewable electricity (RES-E) ambition of up to 80% by 2030, that has been established.

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1.5

Planning History

1.5.1

Planning applications within the application site boundaries

A planning search was carried out through Tipperary & Offaly County Council's online planning portal in September 2023 for relevant planning applications within the red line planning application site boundaries. One extant permission was identified in County Offaly with nine valid planning applications identified in total. The planning applications within the red line boundaries in County Tipperary and County Offaly are outlined in the table below.

Table 1-3: Planning applications within the Red Line Boundary within Co. Tipperary

| Pl. Ref. | Applicant | Description | Decision |
|----------|------------------------|--|-------------------------------------|
| 05510960 | David & Victoria Baker | Underpass and associated site works | Granted (Conditional) 01/08/2006 |
| 07510591 | D & JP Manning | internal and elevational modifications to 8 two storey terraced houses and for permission for 2 additional houses (previously granted under planning permission reference nos 06510809 and 04511072) | Granted (Conditional) 03/07/2007 |
| 04511072 | E. Monahan | 65 No. dwelling houses, creche, entrance and ancillary works | Granted (Conditional) 11/04/2005 |
| 08510842 | Tom Turner & Sons | Retention: unauthorised development consisting of vehicle parking area | Withdrawn 24/02/2009 |
| 07510353 | Tom Turner & Sons | Retention: unauthorised development consisting of vehicle parking area | Declared withdrawn 26/10/2007 |

Table 1-4: Planning Applications within the Red Line Boundary within Co. Offaly.

| Pl. Ref. | Applicant | Description | Decision |
|----------|---------------------|---|-------------------------------------|
| BR898 | Vincent Bergin | 4 no. single storied dwelling houses | Granted (Conditional) 05/01/1996 |
| 99395 | Smyth Sand & Gravel | Retention of existing sand & gravel pit & permission for extension of sand & gravel workings | Granted (Conditional) 27/01/2000 |
| BR1638 | Kevin & Linda Hand | to construct a storey and half extension to the side of existing dwelling and all associated site works | Granted (Conditional) 22/09/2010 |

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| <p>18230 & ABP-304056-19</p> | <p>Galetech Energy Developments Cloghan Limited</p> | <p>The installation of approximately 12.5km of 38kv electricity transmission line from the permitted (wind farm) substation (Offaly county council planning register reference 14/188 & An Bord Pleanala reference pl19.244053) in the townland of Stonestown, County Offaly to the existing electricity substation in the townland of Clondallow, County Offaly. The transmission line will comprise approximately 8.5km of underground line and approximately 3.7km of overhead line. Underground infrastructure will be located within private lands and within the public roads numbered N62, R439 and the L70152; will be installed in excavated trenches of approximately 1.2m in depth and will include associated underground ducting, joint bays, communication chamber bays, sheath link boxes and inspection chambers; directional drilling at 1 no. Railway crossing along the N62, and all associated site development and reinstatement works. Overhead infrastructure will consist of 3 no. Powerlines suspended from wooden poles with a maximum height of 16 metres, and all associated site development and reinstatement works. This planning application is accompanied by an environmental impact assessment report (EIAR) / environmental impact statement (EIS) which includes an assessment of the likely impacts of the proposed development, as a whole and in combination with the relevant off-site or secondary developments which will occur as a direct result of the proposed development, including the wind farm development permitted pursuant to Offaly County Council planning register reference 14/188 & An Bord Pleanala reference pl19.244053</p> | <p>Granted on appeal (Conditions) 28/05/2020</p> |
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1.5.2 Wind Energy Developments within 25km

A planning search was carried out to establish permitted and operational wind farms within 25km of the subject site. The search was carried out using the relevant local authority planning portals in September 2023 for relevant planning applications. In total, 8 wind farms within 25km were identified:

Table 1-5: Wind Farms within 25km.

| Pl. Ref. | Applicant | Wind Farm | Description | Decision | Status | Turbine No. |
|----------|----------------------------|-----------|---|-------------------------------------|-------------|-------------|
| 5123496 | Trevor & Georgina Armitage | Carrig | 3 no. IMW wind turbines, service roadways and control house | Granted (Conditional) 28/06/2001 | Operational | 3 |
| 5123495 | Nigel & Robert Alexander | Skehanagh | 5 no. IMW wind turbines, service roadways and control house | Granted (Conditional) 28/06/2001 | Operational | 5 |
| 1544 | Meenwaun Wind Farm Ltd. | Meenwuan | 10 year permission for the construction of a wind farm comprising up to 5 no. Turbines with a maximum tip height of up to 169m and associated turbine foundations, hardstanding areas and drainage, 1 no. Permanent meteorological mast up to 80m in height, tree felling, a stream crossing, upgrading of existing and provision of new site tracks and associated drainage, provision of new site entrance, 1 no. Borrow pit and associated ancillary infrastructure, onsite electrical substation including control building, wastewater holding tank, fencing and associated ancillary infrastructure, underground electrical cabling and associated communications cabling between the turbines and proposed onsite substation, underground electrical cabling | Granted (Conditional) 22/04/2015 | Operational | 4 |

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|---------------|-----------------------------|---------------------|--|----------------------------------|------------------------------|----|
| | | | and associated communications cabling between the proposed onsite substation and the existing substation at dallow, temporary developments/works associated with the construction phase including 1 no. Temporary construction site compound and associated ancillary infrastructure. An environmental impact statement (E.I.S.) and a natura impact statement (N.I.S.) accompany this application | | | |
| ABP-306706-20 | Bord Na Móna Powergen Ltd | Derrinlough | A ten year permission for a wind farm consisting of 21 wind turbines and all associated site works | Granted (Conditional) 26/08/2021 | Permitted – pre-construction | 21 |
| 5124325 | Matt O'Meara | Ballinlough-Ikerrin | Small wind farm consisting of 3 no. 850 kW turbines each with rotor height of 75 m and ancillary works consisting of access roads, control building and ESB compound - E.I.S RECEIVED WITH APPLICATION | Granted (Conditional) 28/12/2001 | Operational | 3 |
| 11510203 | Monaincha Wind Farm Ltd | Monaincha | for a modification to Planning Ref. 09/51/0084 (Monaincha Wind Farm) and an amendment to associated Planning Conditions. The primary modification is an increase in turbine tip height from 125m to 156m. As a result of this modification there will also be minor (micrositing) changes in the location of 5 no. turbines and associated revisions to the supporting civil infrastructure design, including the provision of a borrow pit. An environmental impact statement accompanies this application. | Granted (Conditional) 08/09/2011 | Operational | 15 |
| EX15011 | Gaelectric Developments Ltd | Leabeg | PI2/10/130 for the construction of a windfarm consisting of two wind turbines (hub height not exceeding 85m, blade diameter not exceeding 82.4m) an electrical substation building, construction, extension and upgrade of internal site tracks and associated works | Granted (Conditional) 18/06/2015 | Operational | 2 |

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|-------|--|---------|---|----------------------------------|-------------|---|
| 14188 | Galetech Energy Developments Cloghan Ltd | Cloghan | 10 year permission for the erection of 9 no. Wind turbines each with a hub height of up to 100m, a typical rotor diameter of 103m (overall maximum tip height of up to 150m) and all associated site development works including 1 no. Temporary site compound area (697 sq.m), turbine foundations, crane hardstandings, access tracks, underground cabling, upgrades to existing site entrance off the n62, the construction of a 38kv switch room and control facility (94 sq.m) with associated equipment and compound area enclosed by a 2.4m high palisade fence. The application is accompanied by an environmental impact statement (EIS) and a natura impact statement (NIS) | Granted (Conditional) 07/10/2014 | Operational | 9 |
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1.6 Scoping and Consultation

1.6.1 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 Environmental Impact Assessment (EIA). This process is conducted by contacting the 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 design iteration process. In this way scoping not only informs the content and scope of the EIAR, it also provides a feedback mechanism for the proposal design itself.

A scoping report, providing details of the Proposed Development, was prepared by MKO and circulated in September 2022. In May 2023, another letter was sent informing the relevant bodies of a revision to the EIA Scoping Document for the Proposed Development. MKO requested the comments of the relevant personnel/bodies in their respective capacities as consultees with regards to the EIAR process. As part of the constraints mapping process, which is detailed in Section 3.2.6.1 of Chapter 3 of this EIAR, telecommunications operators were contacted in September 2022 in order to determine the presence of telecommunications links either traversing or in close proximity to the Wind Farm Site.

1.6.2 Scoping Responses

Table 2-5 lists the responses received to the scoping document circulated. Telecommunications operators were scoped at an earlier stage for the purposes of constraints mapping. Copies of all scoping responses received as of September 2023 are included in Appendix 2-1 of this EIAR. The recommendations of the consultees have informed the scope of the assessments undertaken and the contents of the EIAR. Those bodies engaged with at scoping stage are set out below in Table 2-5.

Table 1-6: Scoping List and Responses

| Ref | Consultee | Date of Response |
|-----|--|---------------------------|
| 1 | An Taisce | 08/05/2023 |
| 2 | Bat Conservation Ireland | 08/05/2023 |
| 3 | BirdWatch Ireland | No Response |
| 4 | Butterfly Conservation Ireland (BCI) | No Response |
| 5 | Commission for Regulation of Utilities, Water and Energy | No Response |
| 6 | Department of Agriculture, Food and the Marine | 28/09/2022, 09/05/2023 |
| 7 | Department of Defence | 22/09/2022, 11/05/2023 |
| 8 | Department of the Environment, Climate and Communications | 08/05/2023 |
| 9 | Department of Tourism, Culture, Arts, Gaeltacht Sport, and Media | 30/09/2022 |
| 10 | EMR Integrated Solutions | 10/10/2022 |
| 11 | Environmental Protection Agency | No Response |
| 12 | Failte Ireland | 07/10/2022, 11/05/2023 |
| 13 | Forest Service | No Response |
| 14 | Geological Survey of Ireland | 07/11/2022, 09/05/2023 |
| 15 | Health Service Executive | 05/10/2022 |
| 16 | Iarnród Éireann | No Response |

| Ref | Consultee | Date of Response |
|-----|--|---------------------------|
| 17 | Inland Fisheries Ireland | 23/09/2022 |
| 18 | Irish Aviation Authority | 04/10/2022 |
| 19 | Irish Peatland Conservation Council | No Response |
| 20 | Irish Raptor Study Group | No Response |
| 21 | Irish Red Grouse Association | No Response |
| 22 | Irish Water | No Response |
| 23 | Irish Wildlife Trust | No Response |
| 24 | NPWS | 09/05/2023 |
| 25 | Offaly County Council (Planning Dept.) | No Response |
| 26 | Offaly County Council (Environment Dept.) | No Response |
| 27 | Offaly County Council (Roads & Transport Dept.) | No Response |
| 28 | Offaly County Council (Heritage Officer) | No Response |
| 29 | Office of Public Works | No Response |
| 30 | Ormond Flying Club | No Response |
| 31 | Shannon River Basin District | No Response |
| 32 | Southern Regional Assembly | 22/09/2022, 09/05/2023 |
| 33 | Sports Ireland (formerly Irish Sports Council) | No Response |
| 34 | Sustainable Energy Authority of Ireland | No response |
| 35 | The Arts Council | No response |
| 36 | The Heritage Council | No Response |
| 37 | Tipperary County Council (Planning Dept.) | 22/09/2022 |
| 38 | Tipperary County Council (Environment Dept.) | No Response |
| 39 | Tipperary County Council (Roads & Transport Dept.) | No Response |
| 40 | Tipperary County Council (Heritage Officer) | No Response |
| 41 | Transport Infrastructure Ireland | 23/05/2023 |
| 42 | Waterways Ireland | 26/09/2022, 09/05/2023 |

Table 2-6 sets out the detail of Telecommunication consultation responses received. The responses received were fully considered and issues raised where followed up through contact with the respondent where clarification was necessary and addressed throughout the EIAR.

Table 1-7: Telecommunications Scoping and Responses

| Ref | Consultee | Date of Response |
|-----|--|------------------|
| 1 | 2rn (RTÉ Transmission Network Ltd.) | 22/09/2022 |
| 3 | BAI | 22/09/2022 |
| 4 | Broadcasting Authority of Ireland | No Response |
| 5 | Coimisiún na Meán | 09/05/2023 |
| 6 | Commission for Communications Regulation | No Response |
| 7 | Eir | No Response |
| 8 | EirGrid | No Response |
| 9 | Enet | 22/10/2022 |
| 10 | ESB Telecoms | No Response |
| 11 | Imagine Group Communications | 27/10/2022 |
| 12 | Lighthouse | No Response |
| 13 | TETRA Ireland Communications Ltd. | No response |
| 14 | TG4 | No response |
| 15 | Three Ireland Ltd. | No Response |
| 16 | Towercom | No Response |
| 17 | Viatel Ireland Ltd. | No Response |
| 18 | Virgin Media Ltd (previously UPC) | No Response |
| 19 | Vodafone Ireland Ltd. | 10/10/2022 |

Table 2-7 below provides a summary of the details received from the consultees. The table also identifies the relevant chapter where the points raised by each of the consultees are addressed.

Table 1-8: Consultee responses and relevant chapters

| Consultee | Points Raised by Consultee | Addressed in Chapter |
|--|---|--|
| Department of Housing, Local Government and Heritage | <p><u>Nature Conservation</u></p> <ul style="list-style-type: none"> ➤ Proximity of the Proposed Development to several designated areas. ➤ Potential hydrological impacts of the Proposed Development on nearby wetland habitats and designated sites. ➤ Potential impact of the Proposed Development on the future rewetting of drained peatlands and an assessment of the carbon release from the proposed works. ➤ Proximity of the Proposed Development to peatlands and associated habitats which are known to contain wintering populations of wildfowl. ➤ The presence of Curlew (<i>Numenius arquata</i>) in the vicinity of the Proposed Development site during the breeding season and the potential impact of the Proposed Development on the species. | <p>Chapter 6 Biodiversity</p> <p>Chapter 8 Birds</p> <p>Chapter 12 Climate</p> |
| Department of Agriculture, Food, and the Marine | <ul style="list-style-type: none"> ➤ The developer must obtain a Felling License from The Department for Agriculture, Food, and the Marine before trees are felled or removed. ➤ The developer should take note of the contents of Felling and Reforestation Policy document which provide a consolidated source of information on the legal and regulatory framework relating to tree felling. | Chapter 6 Biodiversity |
| Department of Defence | <ul style="list-style-type: none"> ➤ Turbines should be illuminated by Type C, Medium intensity, Fixed Red obstacle lighting with a minimum output of 2,000 candela to be visible in all directions of azimuth and be operational 24/7. Obstacle lighting should be incandescent or of a type visible to Night vision equipment. Obstacle lighting must emit light at the near Infra-Red (IR) range of the electromagnetic spectrum, specifically at or near 850 nanometres (nm) of wavelength. Light intensity to be of similar value to that emitted in the visible spectrum of light. | Chapter 15 Material Assets |
| Department of Transport | <ul style="list-style-type: none"> ➤ Proposing the placement of cables within the public road network, the developer should consider: <ol style="list-style-type: none"> 1. <i>Potential restrictions on the Road Authority in carrying out its function to construction and maintain a public road and the additional costs of such works.</i> 2. <i>Potential impact on the stability of the road with particular emphasis on a 'legacy road' where the design should take into account variable conditions.</i> 3. <i>The possible effect on the remaining available road space.</i> | <p>Chapter 3 Reasonable Alternatives</p> <p>Chapter 15 Material Assets</p> |

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| | <p>4. <i>The necessity of the Road Authority to have the power in the cables to be turned off in order to construct and maintain the public road.</i></p> <p>➤ The Department consider it important that the examination of the proposal should include consideration of the following:</p> <ol style="list-style-type: none"> 1. <i>Examination of options other than cables within the road.</i> 2. <i>Examination of connecting to the national grid at a substation closer to the wind farm.</i> 3. <i>Details of where in the road cross section cables are to be placed.</i> 4. <i>Details of any chambers proposed within the public road cross section.</i> 5. <i>The elimination of joint bays and use of temporary removable jointing bays to protect the integrity of the road.</i> 6. <i>Rationalisation of the no. of cables involved and their division within the trench.</i> <p>➤ The Department considers the following should be considered when applying conditions to any approval.</p> <ol style="list-style-type: none"> 1. <i>A condition requiring the local authority approval of the final route of cables through the public roads. If, during construction, there was a need to deviate from the detailed design then the approval of the local authority would again be sought.</i> 2. <i>A condition requiring the developer to comply with all appropriate standards and, inter alia the Guidelines for Managing Openings in Public Roads 2017.</i> 3. <i>A condition requiring that the location of the cables would be recorded as exactly as possible.</i> 4. <i>A condition to require the elimination of joining bays and the use of temporary removable joining bays instead.</i> 5. <i>A condition requiring the developer to route cables away from bridge structures and specifically preventing the developer from attaching cables to road bridges.</i> 6. <i>A condition requiring the developer to notify the</i> 7. <i>Roads Authority of the owner of the cables (Owner) and the controller (Power Controller) of the power transmitted along the cables.</i> | |
| Fáilte Ireland | <p>➤ To assess the impact of the Proposed Development on tourism assets.</p> | Chapter 5 Population and Human Health |
| Geological Survey of Ireland | <p>Geoheritage</p> <p>➤ Proximity of the Proposed Development site to the Arragh More Bog Geological Site and the potential impacts on Tipperary County Geological Sites as a result of the Proposed Development.</p> | Chapter 8 Land, Soils and Geology |

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| | <p><u>Groundwater</u></p> <ul style="list-style-type: none"> ➤ The presence of a source protection area, Abbeyville Group Water Scheme, and the potential for any contamination or dewatering as a result of the Proposed Development. <p><u>Geohazards</u></p> <ul style="list-style-type: none"> ➤ Use of the GSI data on landslides, flooding and coastal erosion for the Flood Risk Assessment and other management plans. <p><u>Natural Resources</u></p> <ul style="list-style-type: none"> ➤ Use of the GSI data on aggregate potential to identify areas of High to Very High source aggregate potential within the area. <p><u>Geochemistry</u></p> <ul style="list-style-type: none"> ➤ Use of available geochemistry data to assess the chemical status of soil and water at a regional scale and to support the assessment of existing or potential impacts on human activity on environmental chemical quality. | <p>Chapter 9 Hydrology and Hydrogeology</p> |
| <p>Health Service Executive</p> | <p><u>Public Consultation</u></p> <ul style="list-style-type: none"> ➤ It is recommended that early and meaningful public consultation with the local community is undertaken to ensure all potentially significant impacts of the Proposed Development have been assessed adequately. ➤ To assist with the consultation and planning process it is recommended that the applicant develops a dedicated website for the Proposed Development and all correspondence, maps, project updates and documentation including the EIAR should be uploaded. <p><u>Decommissioning</u></p> <ul style="list-style-type: none"> ➤ The EIAR should detail the eventual fate of the turbines and associated material. ➤ The EIAR should indicate the proposed future use of the development site at the end of the planning permission period. <p><u>Siting, Location & details of Turbines</u></p> <ul style="list-style-type: none"> ➤ The EIAR should include a map and description of the proposed location of each turbine. ➤ The Environmental Health Service expects that details of the turbines to be installed will be available at the time of planning permission is sought and will be included in the EIAR. ➤ Details of the foundations for the wind turbines including depth, quantity, and material to be used should be included in the EIAR. <p><u>Assessment of Consideration of Alternatives</u></p> <ul style="list-style-type: none"> ➤ The EIAR should consider an assessment of alternatives. <p><u>Noise and Vibration</u></p> | <p>Chapter 1 Introduction</p> <p>Chapter 3 Reasonable Alternatives</p> <p>Chapter 4 Description</p> <p>Chapter 5 Population and Human Health</p> <p>Chapter 8 Land, Soils and Geology</p> <p>Chapter 9 Hydrology and Hydrogeology</p> <p>Chapter 10 Air Quality</p> <p>Chapter 12 Noise and Vibration</p> <p>Appendix 4-3 Construction and Environmental Management Plan</p> |

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| | <ul style="list-style-type: none"> ➤ A baseline noise monitoring survey should be undertaken to establish the existing background noise levels. ➤ An assessment of the predicted noise impacts during the construction phase and the operational phase of the Proposed Development must be undertaken. <p><u>Shadow Flicker</u></p> <ul style="list-style-type: none"> ➤ It is recommended that a shadow flicker assessment is undertaken to identify any dwellings and sensitive receptors which may be impacted by shadow flicker. The assessment must include all proposed mitigation measures. ➤ It is recommended that turbine selection will be based on the most advanced available technology that permits shut down during times when residents are exposed to shadow flicker. <p><u>Air Quality</u></p> <ul style="list-style-type: none"> ➤ A Construction Environmental Management Plan should be included in the EIAR which details dust control and mitigation measures. <p><u>Surface and Ground Water Quality</u></p> <ul style="list-style-type: none"> ➤ The proposed development has the potential to have a significant impact on the quality of both surface and ground water. The Environmental Health Service recommends that a walk over survey of the site is undertaken in addition to a desktop analysis of Geological Survey of Ireland data in order to identify the location of private wells used for drinking water purposes. ➤ Any potential significant impacts to drinking water sources should be assessed. Details of bedrock, overburden, vulnerability, groundwater flows, aquifers and catchment areas should be considered when assessing potential impacts and any proposed mitigation measures. ➤ Any impacts on surface water as a result of the construction of the underground cables should be identified and addressed in the EIAR. <p><u>Geotechnical and Peat Stability Assessment</u></p> <ul style="list-style-type: none"> ➤ A detailed assessment of the current ground stability of the site for the proposed renewable energy development and all proposed mitigation measures should be detailed in the EIAR. ➤ An accurate assessment of the potential impacts of the foundations on water quality and peat stability cannot be undertaken without this information. <p><u>Ancillary Facilities</u></p> <ul style="list-style-type: none"> ➤ The EIAR should include details of the location of all site office, construction compound, fuel storage depot, sanitary accommodation and canteen, First Aid facilities, disposal of wastewater and the provision of a potable water supply to the site canteen. <p><u>Cumulative Impacts</u></p> | <p>Appendix 4-6 Decommissioning Plan</p> |
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| | <ul style="list-style-type: none"> ➤ All existing or proposed wind farm developments in the vicinity should be clearly identified in the EIAR. ➤ The impact on sensitive receptors of the proposed development combined with any other wind farm/renewable energy developments in the vicinity should be considered. The EIAR should include a detailed assessment of any likely significant cumulative impacts of the proposed renewable energy development. | |
| <p>Irish Aviation Authority</p> | <p>In the event of planning consent being granted, the applicant should be conditioned to contact the Irish Aviation Authority to:</p> <ul style="list-style-type: none"> ➤ agree an aeronautical obstacle warning light scheme for the wind farm development. ➤ provide as-constructed coordinates in WGS84 format together with ground and blade tip height elevations at each wind turbine location. ➤ notify the Authority of intention to commence crane operations with at least 30 days prior notification of their erection. | <p>Chapter 15 Material Assets</p> |
| <p>Inland Fisheries Ireland</p> | <ul style="list-style-type: none"> ➤ Proximity of the Proposed Development to streams such as the Faddan Beg which crosses the proposed site and which feeds into the Little Brosna River which flows directly to the River Shannon at Victoria Lock, part of the River Shannon Callows SAC. ➤ All watercourses that will receive drainage from the construction sites of the turbines or the access roads must be assessed in terms of aquatic biodiversity with particular emphasis on fish, the food of fish, spawning grounds and fish habitat in general. ➤ IFI are concerned about soils, their structure and types around all the turbines, turbine pads, associated access roads and site development. IFI 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. ➤ Of concern to IFI is that the proposed development will necessitate the continuation of the current drainage/watercourse management scheme, thereby preventing future restoration of the bog complex. Additionally, IFI are concerned with the proposed peat stripping of the site and the re-use of this material within the development and the potential for significant nutrient loss from this activity. Any proposed mitigation measures should focus not solely on suspended solids but also on dissolved nutrients such as ammonia that are lost from desiccated peat. ➤ IFI strongly recommends that specialist personnel are employed to assess soil strength and suitability of the ground at each site and along any proposed access road. The potential for soil movement and landslides should be assessed fully within the EIS. | <p>Chapter 6 Biodiversity</p> <p>Chapter 8 Land, Soils and Geology</p> <p>Chapter 9 Hydrology and Hydrogeology</p> <p>Appendix 4-3 Construction and Environmental Management Plan</p> <p>Appendix 4-4 Surface Water Management Plan</p> |

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| | <ul style="list-style-type: none"> ➤ 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. ➤ IFI have concerns about the construction of roads as these will tend to provide preferential flow paths for surface waters. Considerable attention must be paid to the interception of surface water flows. ➤ Consideration must be given to the disposal of waste materials such that they will not give rise to discharges to waters. ➤ 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. This type of material has poor tensile strength and is liable to be crushed by heavy vehicles thereby releasing fine sediment materials into the drainage system which are difficult to precipitate and may give rise to water pollution. ➤ 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. In the event that environmental damage to the aquatic habitat and associated riparian zone is caused, the EIAR should indicate the steps that may be taken to rectify any damage to the aquatic habitat including liaison with the appropriate authorities. ➤ In relation to wind farm structures and infrastructure it is important that a sufficient bank side riparian zone is maintained to absorb and attenuate overland flows. | |
| <p>Transport Infrastructure Ireland</p> | <p>The developer should have regard, <i>inter alia</i>, to the following:</p> <ul style="list-style-type: none"> ➤ 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. ➤ 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. | <p>Chapter 12 Noise and Vibration</p> <p>Chapter 14 Landscape and Visual</p> <p>Chapter 15 Material Assets</p> <p>Appendix 15-2 Traffic Management Plan</p> |

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| | <ul style="list-style-type: none"> ➤ The developer, in preparing EIAR, should have regard to TII Publications. ➤ The developer, in preparing EIAR, 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 construction 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, noting traffic volumes attending 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 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. | |
| <p>Uisce Éireann</p> | <ul style="list-style-type: none"> ➤ Where the development proposal has the potential to impact an Uisce Éireann Drinking Water Source(s), the applicant shall provide details of measures to be taken to ensure that there will be no negative impact to Uisce Éireann's Drinking Water Source(s) during the construction and operational phases of the development. ➤ Where the development proposes the backfilling of materials, the applicant is required to include a waste sampling strategy to ensure the material is inert. ➤ Mitigations should be proposed for any potential negative impacts on any water source(s) which may be in proximity and included in the environmental management plan and incident response. ➤ Any and all potential impacts on the nearby reservoir as public water supply water source(s) are assessed, including any impact on hydrogeology and any groundwater/ surface water interactions. ➤ Impacts of the development on the capacity of water services. ➤ The applicant shall identify any upgrading of water services infrastructure that would be required to accommodate the proposed development. | <p>Chapter 9 Hydrology and Hydrogeology</p> <p>Appendix 4-3 Construction and Environmental Management Plan</p> <p>Appendix 4-4 Surface Water Management Plan</p> |

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| | <ul style="list-style-type: none"> ➤ In relation to a development that would discharge trade effluent – any upstream treatment or attenuation of discharges required prior to discharging to an Uisce Éireann collection network. ➤ In relation to the management of surface water; the potential impact of surface water discharges to combined sewer networks and potential measures to minimise and or / stop surface waters from combined sewers. ➤ Any physical impact on Uisce Éireann assets – reservoir, drinking water source, treatment works, pipes, pumping stations, discharges outfalls etc. including any relocation of assets. ➤ When considering a development proposal, the applicant is advised to determine the location of public water services assets, possible connection points from the applicant’s site / lands to the public network and any drinking water abstraction catchments to ensure these are included and fully assessed in any pre-planning proposals. ➤ Other indicators or methodologies for identifying infrastructure located within the applicant’s lands are the presence of registered wayleave agreements, visible manholes, vent stacks, valve chambers, marker posts etc. within the proposed site. ➤ Any potential impacts on the assimilative capacity of receiving waters in relation to Uisce Éireann discharge outfalls including changes in dispersion/circulation characterises. ➤ Any potential impact on the contributing catchment of water sources either in terms of water abstraction for the development or the potential of the development to influence / present a risk to the quality of the water abstracted by Uisce Éireann for public supply should be identified within the report. ➤ Where a development proposes to connect to an Uisce Éireann network and that network either abstracts water from or discharges wastewater to a “protected”/ sensitive area, consideration as to whether the integrity of the site / conservation objectives of the site would be compromised should be identified within the report. ➤ Mitigation measures in relation to any of the above ensuring a zero risk to any Irish Water drinking water sources. | |
| <p>Vodafone</p> | <ul style="list-style-type: none"> ➤ Proximity of the Proposed Development to a telecommunication link | <p>Chapter 15 Material Assets</p> |

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1.7

Other Consultations

1.7.1

Community Engagement

The Applicant has engaged with the wider communities with regards to the Proposed Development. Public consultation began in December 2022, through engagement with near neighbours, local representatives, and local community groups. This included door-to-door engagement with near neighbours within 2 km and the distribution of information packs to businesses, schools, groups, and clubs within 5 km. A Community Liaison Officer was also appointed and a dedicated project website with the relevant project information went live. In April 2023, A public Information Event was held in the Carrig and Riverside Community Centre. 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. Appendix 2-2 of this EIAR contains a full and detailed community engagement report. The report was prepared to record the consultation carried out with the local community in respect of the Proposed Development.

The Proposed Development has the potential to have significant benefits for the local economy, by means of job creation, landowner payments and commercial rate payments. An important part of any renewable energy development, which Carrig Renewable Energy Limited has been at the forefront of developing, is its Community Benefit Package. The concept of directing benefits from wind farms to the local community is promoted by the National Economic and Social Council (NESC) and the Wind Energy Ireland (WEI) among others. While it may be simpler and easier to put a total fund aside for a wider community area, the applicant is endeavouring to develop new ways to direct increased gain towards the local community with particular focus on those living closest to the Proposed Development.

The Wind Energy Development Guidelines (2006) (the Guidelines) state that:

“While it is not a mandatory requirement, it is strongly recommended that developers of a wind energy project should engage in active consultation and dialogue with the local community at an early stage in the planning process, ideally prior to submitting a planning application”.

This was further addressed in the Preferred Draft Approach to Wind Energy Development in Ireland (June 2017) which stated the following with respect to planning applications for wind farms:

“Planning applications must contain a Community Report prepared by the applicant which will specify how the final proposal reflects community consultation. The Community Report must also outline steps taken to ensure that the proposed development will be of enduring economic benefit to the communities concerned”.

The Draft Revised Wind Energy Guidelines (Department of Housing, Planning and Local Government, 2019) (the draft Guidelines) has retained this position stating 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”.

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.

The Proposed Development will provide an enduring economic benefit to the communities surrounding the Proposed Development as outlined in Appendix 2-2 of the EIAR, through the community benefit package for residents and community groups, employment during the construction and operation of the Proposed Development and through the annual rates payable to the local authority.

1.7.2 Pre-Planning Meetings

1.7.2.1 Tipperary County Council

First meeting

Members of the team and the prospective Applicant met with representatives from Tipperary County Council on the 29th of November 2022. Those in attendance were:

- > Marie Ryan - Tipperary County Council
- > Ann Marie Devaney - Tipperary County Council
- > Dermot Leahy - Tipperary County Council
- > Carmel Daly - Tipperary County Council
- > John Tierney – Atlantic Infrastructure Partners
- > Brian Keville - MKO
- > John Willoughby - MKO
- > Gus McCarthy - MKO
- > Eoin McCarthy - MKO
- > Jonny Fearon - MKO

The team gave an overview of the Proposed Development in the form of a PowerPoint presentation which discussed:

- > Site selection and location
- > Policy context
- > Site constraints
- > Site justification
- > Scoping, pre-application consultation and public consultation
- > EIAR contents
- > Landscape and photomontages

Following the presentation further discussion included the following items:

- > National wind energy policy
- > Biodiversity and rewilding peatlands
- > Tipperary County Council review of the County Development Plan and Wind Energy Strategy
- > The planning application's contents

Second Meeting

Members of the team and the prospective Applicant met with representatives from Tipperary County Council for a second time on the 7th of June 2023. Those in attendance were:

- > Marie Ryan - Tipperary County Council
- > Carmel Daly - Tipperary County Council
- > John Tierney – Atlantic Infrastructure Partners
- > Brian Keville - MKO
- > John Willoughby - MKO

> Eoin McCarthy - MKO

The team gave an overview of the Proposed Development in the form of a PowerPoint presentation which discussed:

- > Project overview
- > Project updates and changes
- > Site rationale
- > EIAR contents
- > Landscape and photomontages

Following the presentation further discussion included the following items:

- > Planning policy
- > Wind energy zoning designation
- > Construction traffic
- > Planning applications contents and submission

Tipperary Roads Department - First Meeting

Members of the team and the prospective Applicant met with representatives from Tipperary County Council's Roads Department on the 29th of June 2023 to discuss road and traffic related matters. Those in attendance were:

- > Liam Brett – Tipperary County Council
- > Bary Murphy - Tipperary County Council
- > Phillip McGrath - Tipperary County Council
- > Brian Keville – MKO

The following items were discussed at the meeting:

- > Grid connection cable along public roads
- > The use and upgrade of public roads as part of the Proposed Development
- > Road testing and site investigations
- > Turbine delivery
- > Delivery of stone for construction
- > Further consultation

Tipperary Roads Department – Second Meeting

Members of the team and the prospective applicant met with representatives from Tipperary County Council's Roads Department on the 4th of September 2023 to discuss road and traffic related matters. Those in attendance were:

- > Jonny Fearon – MKO
- > Michael Watson – MKO
- > Alan Lipscombe – AL Traffic and Transport
- > John Tierney – AIP
- > Liam Brett – Tipperary County Council
- > Marie Ryan – Tipperary County Council
- > Carmel Daly – Tipperary County Council
- > Barry Murphy – Tipperary County Council

The following items were discussed at the meeting:

- > Imported material volumes
- > Alternative grid connection route
- > Bridge and watercourse crossings
- > Condition assessments, strengthening and reinstatement of local roads
- > Traffic Management
- > Indemnity
- > Joint bays
- > Transport delivery route

1.7.2.2 Offaly County Council

MKO, along with the prospective Applicant, met with representatives from Offaly County Council on the 13th of April 2023. Those in attendance were:

- > Una McCafferkey – Offaly County Council
- > Barry Lennon – Offaly County Council
- > John Tierney – Atlantic Infrastructure Partners
- > Brian Keville - MKO
- > John Willoughby - MKO
- > Jonny Fearon – MKO
- > Ronan Dunne - MKO

The team gave an overview of the Proposed Development in the form of a PowerPoint presentation which discussed:

- > Site selection and location
- > Policy context
- > Project details
- > Site selection and justification
- > Grid connection routes
- > Scoping, pre-application consultation and public consultation
- > EIAR contents
- > Landscape and photomontages

Following the presentation further discussion included the following items:

- > Substation capacity
- > Road network capacity and condition
- > Construction traffic
- > Community engagement

1.8 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 a proposed development or project (all of which are considered in the various chapters of this EIAR), 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 a proposed development or 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 EIA 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.

1.8.1 Methodology for Cumulative Assessment of Projects

The EIA Directive includes a requirement to consider *'a cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources.'* The methodology for the cumulative assessment has been informed by the relevant Guidance documents and by the nature and scale of the Proposed Development.

The potential cumulative impact of the Proposed Development and combined with the potential impact of other projects or plans 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, projects pending a decision from the planning authority, projects in the public domain such as those Strategic Infrastructure Development (SID) at pre-consultation with An Bord Pleanála, and land-uses in the vicinity of the Proposed Development site location.

The cumulative impact assessment of projects has three principle aims:

- To establish the range and nature of existing and approved projects within the cumulative impact study area of the Proposed Development.
- To summarise the relevant projects which have a potential to create cumulative impacts.
- 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.

Assessment material for this cumulative impact assessment was compiled on the relevant developments within the vicinity of the Proposed Development. 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.

1.8.2 Cumulative Study Area

The geographical boundaries of the various zones of sensitivity of and to the Proposed Development from which there may be potential for cumulative impacts to arise relative to each individual EIAR topic, i.e each chapter, is presented below in Table 2-7. Following consultation with the EIAR team on

each individual topic, the maximum geographical extent and justification for this extent was established and is presented below.

Table 1-9: Cumulative Study Areas and Justification

| Individual Topic | Maximum Extent | Justification |
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| Population & Human Health (including shadow flicker) | <p>Wind Farm Site:</p> <p>Wind Farm Site Study Area for Population (Lorrha East, Clohaskin, Carrig, Graigue, Ballingarry DEDs)</p> <p>Shadow Flicker Study Area (10xRD buffer from proposed turbines)</p> <p>Grid Connection:</p> <p>Grid Connection Study Area for Population (100 from underground electrical cabling route)</p> <p>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</p> | <p>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 1.62km (ten times the rotor diameter from proposed turbines) for the Proposed Development. As the nearest proposed, permitted or existing wind farm is 3.8 km away from the proposed turbines, there is no potential for cumulative shadow flicker effects.</p> <p>The Study Area for Population is identified in Section 5.3.1 in Chapter 5 as the District Electoral Divisions where the Wind Farm Site is located. For the Grid Connection, the Study Area for Population is identified as 100m 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.</p> |
| Biodiversity | <p>1km from Wind Farm Site Boundary.</p> <p>200m from Grid Connection underground electrical cabling route.</p> <p>Consideration for the Biodiversity cumulative extent is also given to the Birds and Water Cumulative geographical boundaries.</p> | <p>Using the precautionary approach and given the nature and scale of the Proposed Development, the geographical boundary for terrestrial ecological aspects, i.e. habitats, is 1km for cumulative assessment for the Wind Farm Site and 200m from Grid Connection underground electrical cabling route.</p> |
| Birds | <p>25km buffer from proposed turbines</p> | <p>NatureScot guidance 'Assessing the Cumulative Impacts of onshore Wind Energy Developments' (SNH, 2012; 2018) was consulted while undertaking the cumulative assessment. SNH (2012; 2018) emphasises that its priority is to 'maintain the conservation status of the species population at the national level.' However, it is acknowledged that consideration should also be allowed for impacts at the</p> |

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| | | <p>regional level ‘where regional impacts have national implications (for example where a specific region holds the majority of the national population)’. Following the guidance of SNH (2012), the cumulative impact assessment has been carried out at the scale of the importance rating of the receptor. A 25km radius of the Proposed Development turbines was considered a reasonable approximation of the size of a county and a 5km radius of the Proposed Development turbines was considered a reasonable approximation for the local level.</p> |
| <p>Land, Soils and Geology</p> | <p>Site Boundary</p> | <p>As there is no pathway for offsite cumulative impacts for Land, Soils and Geology, the cumulative study area is the EIAR Site Boundary.</p> |
| <p>Water</p> | <p>Wind Farm Site:</p> <p>The cumulative study area is delineated by the catchment of the Little Brosna River for proposed, permitted or existing wind-farm developments</p> <p>River Sub Basins for all smaller proposed, permitted or existing plans or projects (i.e. private and commercial type developments).</p> <p>Grid Connection:</p> <p>Within a 200m buffer zone of the proposed underground electrical cabling connection route.</p> | <p>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). Therefore, other wind-farm developments are considered within the catchment of the Little Brosna River for cumulative effects.</p> <p>River Sub Basins are used for smaller developments (i.e. private & commercial type developments). These developments are not likely to present a significant cumulative impact risk on a regional catchment scale as any effects would likely be imperceptible as a result of the setback distances and localised nature of the associated works. Given the nature and scale of the proposed works and the lack of hydrological cumulative impact potential beyond the river sub basin scale, the Water cumulative study area is defined by river sub basins in which the Wind Farm Site is located.</p> <p>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</p> |

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| | | potential cumulative effects on the water environment. |
| Air & Climate | <p>Air Quality Study Area is 1km from Wind Farm Site.</p> <p>200m from Grid Connection underground electrical cabling route.</p> <p>The Climate assessment has been considered on a national basis and not confined to a specific study area.</p> | <p>Given dust particles do not generally travel greater than 500m from source (<i>Guidance on the Assessment of Mineral Dust Impacts for Planning</i>, IAQM 2016), the geographical boundary for the cumulative dust impact is 500m.</p> <p>In line with the TII Publication Air Quality Assessment of Proposed National Roads – Standard PE-ENV-01107, December 2022, a geographical boundary of 1km was used for cumulative air quality assessment.</p> <p>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 of air quality.</p> <p>The Climate assessment has considered the cumulative effects of the Proposed Developments with other developments on a national basis.</p> |
| Noise & Vibration | <p>The list of wind farms which were initially considered in cumulative assessment extended to 10 km.</p> <p>200m from Grid Connection underground electrical cabling route.</p> | <p>The geographical boundary for the cumulative noise assessment is the area within which noise levels from the proposed, consented and existing wind turbine(s) may exceed 35 dB LA90 at up to 10 m/s wind speed (Institute of Acoustics document <i>Good Practice Guide To The Application Of Etsu-R-97 For The Assessment And Rating Of Wind Turbine Noise</i>).</p> <p>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.</p> |
| Cultural Heritage | 20km buffer from proposed turbines | <p>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 Development is considered in the context of other developments, in particular other</p> |

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| | | <p>permitted and proposed wind farms within 20km of the Proposed Development.</p> <p>Direct effects for the Proposed Development are considered to be confined to within the EIAR Site Boundary and relate to construction effects.</p> |
| <p>Landscape & Visual</p> | <p>20km from proposed turbines for visual and landscape effects.</p> <p>15km from proposed turbines for effects on landscape character.</p> | <p>The LVIA Study Area was chosen as 20 kilometres for landscape and visual effects as is suggested by guidance:</p> <p><i>'For blade tips in excess of 100m, a Zone of Theoretical Visibility radius of 20km would be adequate'</i> (WEDGs Page 94, DoEHLG, 2006; Page 152, DoHPLG, 2019)</p> <p>Through experience conducting LVIA for other wind energy development projects, the assessment team determined that no significant effects on landscape character are likely to arise beyond distances of 15km from the proposed turbines. Therefore, a LVIA Study Area of 15km is deemed appropriate for effects on landscape character in relation to the assessment of effects upon designated Landscape Character Areas.</p> |
| <p>Material Assets: Traffic & Transport</p> | <p>The list of wind farms and other projects which were initially considered in cumulative assessment extended to 25 km.</p> <p>200m from Grid Connection underground electrical cabling route.</p> | <p>Informed by traffic modelling scenario and the area of influence the Proposed Development has on changing traffic volumes. The potential cumulative traffic effects with the Proposed Development are assessed on the following criteria;</p> <ul style="list-style-type: none"> • Project status (proposed to operational) • Degree of overlap with the Proposed Development delivery highway network (low to high) • Traffic volumes (low to high) <p>The geographical boundary for the traffic & transport cumulative assessment is defined by the potential for other projects to overlap with the Proposed Development delivery highway network, and so a 25km buffer from turbines and 200m buffer from the proposed underground electrical cabling route is deemed appropriate to capture other plans and projects with the potential for</p> |

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| | | <p>cumulative effects with the Proposed Development.</p> <p>Please refer to Chapter 15 Material Assets for further details on the cumulative assessment methodology.</p> |
| <p>Material Assets: Telecoms, Aviation and Other Utilities</p> | <p>The list of wind farms and other projects which were initially considered in cumulative assessment extended to 25 km.</p> <p>200m from Grid Connection underground electrical cabling route.</p> | <p>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 Development.</p> |

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 (ie. the largest cumulative study boundary of 25km list) across all disciplines in their cumulative impact assessment is included in Appendix 2-3. Smaller cumulative assessment studies have considered all projects within their specific boundary which fall within the long list in Appendix 2-3.

1.8.2.2 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, 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.

1.8.2.3 Forestry Felling and Replanting

The Wind Farm Site comprises coniferous forestry and agricultural land. This land-use will continue in conjunction with the operation and decommissioning of the Proposed Development. The potential for cumulative effects during the construction, operational and decommissioning phases of Proposed Development have therefore been assessed.

Forestry Felling associated with Proposed Development

The Forest Service is responsible for ensuring the development of Forestry within Ireland occurs in a manner and to a scale that maximises its contribution to national socio-economic well-being on a sustainable basis that is compatible with the protection of the environment. The forestry felling associated with the Proposed Development will be carried out under the relevant guidance and under licence from the Forest Service and full details are set out in Section 4.3.8 of the EIAR. In line with the Forest Service's published policy on granting felling licences for wind farm developments, areas cleared of forestry for turbine bases, access roads, and any other wind farm-related uses will have to be replaced by replanting at an alternative site or sites. The Forest Service policy requires replacement or replanting on a hectare for hectare basis for the footprint of the turbines and the other infrastructure.

Replacement of Forestry

The replacement of forestry, felled as part of the Proposed Development, may occur on any lands, within the state, benefitting from Forest Service Technical Approval¹ for afforestation, should the Proposed Development receive planning permission. Under the Forestry Regulations 2017, all applications for licences for afforestation require the prior written approval (technical approval) of the Minister for Agriculture, Food and the Marine.

The requirements for afforestation licencing are set out in the Forestry Regulations 2017 – this includes consideration of Environmental Impact Assessment and Appropriate Assessment as set out in parts 7 and 8 of the Regulations, respectively. Further detail is set out in the Environmental Requirements for Afforestation (DAFM, 2016)¹⁰. 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.

The typical environmental effects of afforestation include potential effects on biodiversity, soils and geology, hydrology and hydrogeology, cultural heritage, landscape and visual, and air and climate.

The applicant is seeking a ten-year planning permission which incorporates time to secure a grid connection agreement, a route to market (RESS or equivalent Power Purchase Agreement), select the preferred equipment suppliers and put the necessary capital funding in place to allow construction and delivery to commence. Thus, the identification of forestry replacement lands at this stage is seen as premature. If a licence for afforestation was obtained prior to seeking and/or obtaining planning permission, it is highly likely that any licencing approvals sought from the Forest Service would have expired before it could be taken up due to the time required for the planning processes and post-planning delivery preparations. The Forest Service Afforestation Licences expire after 3 years from when they are consented.

Furthermore, as mentioned above, the key environmental issues relating to afforestation include water, biodiversity, archaeology, and landscape. Each is subject to regular updates in terms of best practice, guidelines, standards and national policies. Delaying the identification of alternative afforestation lands until such time as they are required enables identification of optimum lands available (from an environmental perspective) for afforestation at that time.

For the purposes of this project, the applicant commits that the location of any replanting (alternative afforestation) associated with the project will be outside the identified cumulative study area. On this basis, it is reasonable to conclude that there will be no more than imperceptible in-combination cumulative effects associated with the replanting. Therefore, forestry replanting is not considered further in the impact assessment chapters of the EIAR.

¹⁰<https://www.gov.ie/en/publication/642e6-forestry/#environmental-requirements>

In addition, the applicant commits to not commencing the project until both a felling and afforestation licence(s) is in place and, therefore, this ensures the afforested lands are identified, assessed and licenced appropriately by the relevant consenting authority.

Further details in relation to the consideration forestry replanting is included in Section 4.3.8.1.2 of the EIAR.

1.8.3 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, plans and land uses within the cumulative study area and within the vicinity of the Proposed Development. These include ongoing agricultural practices.

Overall, the Proposed Development has been designed to mitigate impacts on the environment and particularly 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.

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