

2. BACKGROUND TO THE PROPOSED DEVELOPMENT

This section of the EIAR presents information on Energy and Climate Change policy and targets, the strategic planning context for the proposed development, the planning history, scoping and consultation and describes the cumulative impact assessment process.

2.1 Renewable Energy and Targets

The proposed development comprises the provision of wind turbines which will generate renewable energy and provide it for use 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 published by the Government in 2019 has clearly identified the need for and urgency of change, it states:

“The accelerating impact of greenhouse gas emissions on climate disruption must be arrested. The window of opportunity to act is fast closing, but Ireland is way off course.... The shift in climate is bringing profound shifts of desertification, rising sea levels, displaced population, profound challenges to the natural world, and economic and social disruption. We are close to a tipping point where these impacts will sharply worsen. Decarbonisation is now a must if the world is to contain the damage and build resilience in the face of such a profound challenge.”

Furthermore, the Programme for Government released in June 2020 also highlights the need for a clean and reliable supply of energy:

“Energy will play a central role in the creation of a strong and sustainable economy over the next decade. 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 (as acknowledged by its classification as a Strategic Infrastructure Development under the Planning and Development Act, 2000 (as amended)) and will contribute considerably towards Ireland satisfying its 2030 and 2050 renewable energy targets.

2.1.1 Renewable Energy Resources

Renewable energy resources include solar, wind, water (hydropower, wave and tidal), heat (geothermal) and biomass (wood, waste) energy. These sources 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 far (Source: Sustainable Energy Authority of Ireland (SEAI) website, www.seai.ie).

A gradual shift towards increasing our use of renewable energy resources would result in:

- Reduced carbon dioxide emissions;
- Secure and stable energy for the long-term;
- Reduced reliance on fuel imports; and,
- Investment and employment in our indigenous renewable energy projects; often in rural and underdeveloped areas.

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 needs, with imported fossil fuels accounting for 66% of Ireland’s dependency in 2017 at an estimated cost of €4 billion with a rise of 1% in import dependency to 67% in 2018 (Energy Security in Ireland Report 2020). 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. (*‘Energy in Ireland 2018 Report’*, Sustainable Energy Authority of Ireland’, December 2018). The *“Energy in Ireland 2019 Report”*, Sustainable Energy Authority of Ireland’, (December 2019) has noted that final energy demand grew by 4.5% with increases in all sectors, resulting in a primary energy demand increase of 1.6%. Overall demand for fossil fuels increased by 0.1% in 2018. The European Green Deal – (European Climate Law (2021) 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.

2.1.2 EU Policy and Targets

The 2030 Climate and Energy Policy Framework (adopted by The EU Council in October 2014) marks a further development of EU renewable energy policy. The Framework sets three key targets for the year 2030:

- A binding commitment at EU level of at least 40% domestic Greenhouse 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 July 2016. The proposal implements EU commitments under the Paris agreement on climate change (COP21) and marks an important milestone in the allocation to Member States of a package of climate targets that were formally adopted as part of the 2030 Climate and Energy Framework.

On the 27th of June 2018 EU ambassadors endorsed the provisional agreement reached by the Bulgarian Presidency on the revision of the renewable energy directive. The new regulatory framework is expected to pave the way for Europe's transition towards clean energy sources such as wind, solar, hydro, tidal, geothermal, and biomass energy. The agreement sets a headline target of 32% energy from renewable sources at EU level for 2030.

Additionally, Ireland supports the adoption of a net zero target by 2050 at the EU level. In this regard it should be noted that the Climate Change Advisory Council notes within their 2019 Annual Review that while the share of renewable electricity generation, (particularly wind), is increasing in Ireland, the overall pace of the decarbonisation of the electricity generation sector is not compatible with a low-carbon transition to 2050.

2.1.2.1 Progress on Targets

The most recent information from the SEAI's annual publication (2020) on energy use in Ireland shows the overall share of renewables in primary energy stood at 11.2% in 2019 which is up from the 2018 figure of 10%, and 9.3% in 2017. As per the SEAI's *Energy in Ireland 2020 Update* (detailed here at Section 2.1.4), the contribution from renewables in 2019, has risen to 12% of the Gross Final Consumption (GFC). According to the SEAI's *Renewable Energy in Ireland 2020 Update* (detailed here at Section 2.1.4) this has increased again with the total electrical output from wind in 2018 at 8,640GWh (not normalised) which was a 16% increase in the previous year. The SEAI's update goes on to note that wind generated 28% of all electricity in 2018 second only to gas.

In Ireland, it is widely acknowledged that the vast majority of the renewable electricity requirement is expected to be met through the development of indigenous wind power, as Ireland has a strong wind resource potential, with one of the best onshore wind speed averages in Europe ('The Value of Wind Energy to Ireland', Póry, 2014). Further, the SEAI *Energy In Ireland 2019 Report* (December 2019) confirms that most of the growth in renewable energy has come from wind. Wind provided 84% of all renewable energy generated in 2018.

The Climate Change Advisory Council (CCAC) notes within their *2019 Annual Review* that while the share of renewable electricity generation, particularly wind, is increasing in Ireland, the pace of decarbonisation of the electricity generation sector is not compatible with a low-carbon transition to 2050. As such, Ireland can continue to 'comply' with EU targets by purchasing emission allowances; however, the expenditure of public funds to do so would not result in any domestic benefit, and furthermore, would result in a more difficult and expensive challenge for the country to meet its future 2030 targets and beyond. The CCAC 2019 review concludes that continued and additional investment in capacity and technologies in the renewable energy sector is required to reach these said targets.

EirGrid in their '*All Island Generation Capacity Statement 2020 - 2029*' (Eirgrid, August 2020), state that it is assumed that renewable targets will be largely achieved through the deployment of additional wind powered generation in Ireland. As per the latest statistics issued by IWEA new wind farms commissioned in Ireland have brought the total wind capacity to 4,235MW (<https://www.iwea.com/about-wind/facts-stats>).

The Statement also notes that, at a Median demand level there is not adequate generation capacity to meet demand from 2026 on an All-Island basis once Moneypoint closes at the end of 2025. Should any other plant close then this could give rise to earlier deficits. This is especially pertinent with regard to the recent closures of the peat-fired Shannonbridge and Lough Ree Power Stations. 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 homes¹.

It is noted that the key driver for electricity demand in Ireland for the next number of years is the connection of new large energy users, such as data centres. The EirGrid 2020-2029 report notes that "*the demand forecast in Ireland continues to be heavily influenced by the expected growth of large energy users, primarily Data Centres*". In Ireland, the growth in energy demand for the next ten years varies between 23% in the low demand scenario, to 47% in the high scenario. The Median Forecast is generally aligned with EirGrid's "Tomorrow Energy Scenarios"² in which EirGrid predict that an overall Energy Requirement for Ireland of approximately 41TWh by 2030. Accordingly, the Proposed Development will assist in meeting the increasing electricity demand.

¹ <https://www.iwea.com/about-wind/faqs>

² <https://www.eirgridgroup.com/customer-and-industry/energy-future/>

2.1.3 SEAI Renewable Energy in Ireland 2020 Update

The SEAI’s Renewable Energy in Ireland 2020 Update was published in April 2020. Section 5.2 of the report details the most recent updates with regards to wind energy, it is noted that the total electrical output from wind in 2018 (not normalised) was 8,640GWh. This was an overall increase of 16% when compared to 2017 figures. In 2018 it was found that energy generated by wind accounted for 28% of the gross electrical consumption, this was second to only natural gas.

Plate 2-1 below depicts the annual growth in installed wind-generation capacity and overall cumulative capacity since 2000. It should be highlighted that in 2018 258MW of wind capacity was installed within Ireland, furthermore an additional 461MW was installed in 2019 bringing the total installed capacity to 4,137MW.

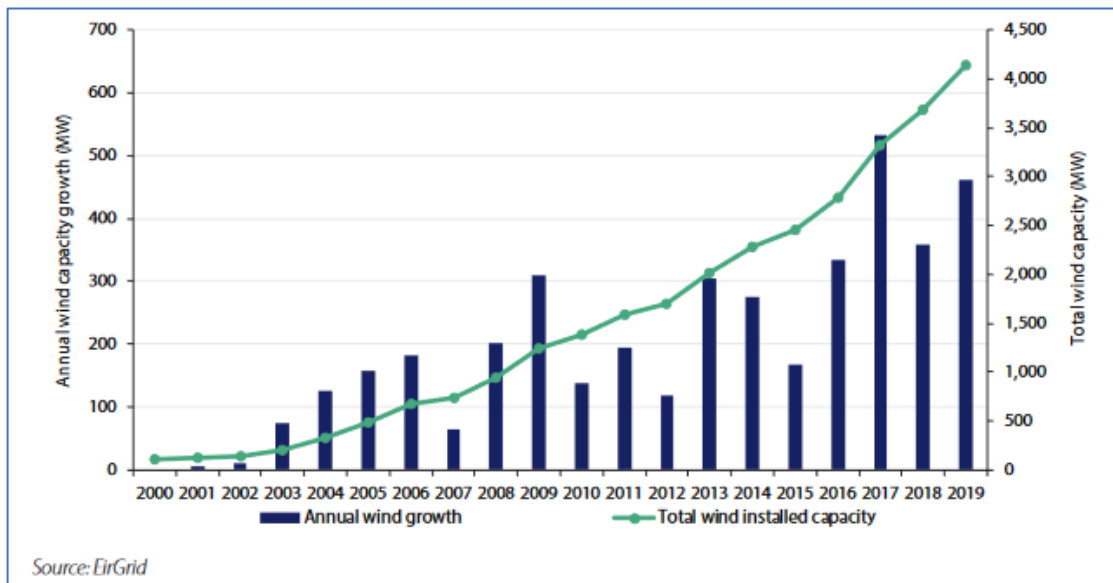


Plate 2-1 Installed wind-generation capacity 2000 to 2019)

In relation to renewable electricity as is depicted in Plate 2-2 below Ireland was 12th out of the EU-28 at 33.2%, above the EU-28 average of 32.1%. The report notes that The top performing countries tend to have large hydropower resources, including Austria and Sweden. Furthermore, it is noted that Ireland had the second highest share of wind-generated electricity in 2018 at 28.1%.

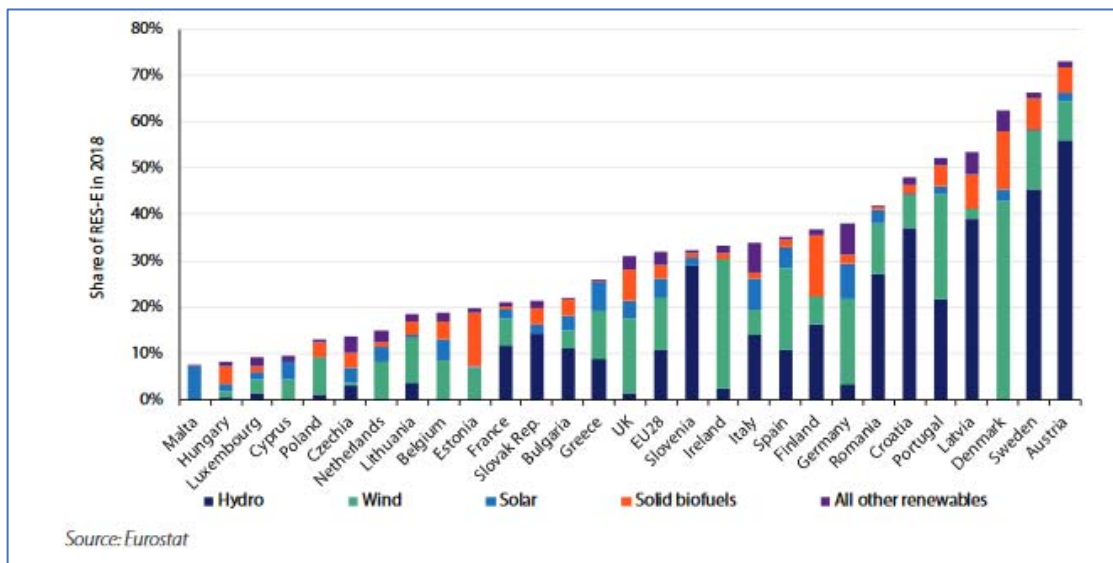


Plate 2-3 Renewable Electricity Share in 2018 for EU Member States

2.1.4 SEAI Energy in Ireland 2020 Report

In December 2020 the SEAI produced the *Energy in Ireland 2020* Report which provides the most up to date figures available (from 2019) in relation to energy production and consumption in Ireland. The annual publication from SEAI presents national energy statistics on energy use in Ireland over the period 2005 to 2019. In the context of 2020, it has been noted that due to the global health crisis and measures deployed to mitigate its effects, the way that energy is used has changed. It is noted that:

“We have seen large reductions in transport energy use in particular, and after an initial decrease in electricity use, we saw all time high levels of demand following the recent easing of restriction leading into Christmas 2020.”

Within the 2020 reflections it is set out that while overall energy use in Ireland in 2019 was at almost the same level as in 2001, the CO₂ emissions from energy are down by almost one fifth with the economy one and a half times larger. Further to the above with regards to electricity the 2020 Report states that in April and May electricity use was initially down somewhat on 2019, but from late summer on electricity use has been up on the previous year. A new all-time peak in demand of 5,357MW was set which was 245 MW higher than the previous record set in 2010.

In terms of final energy demand this fell by 0.6%, primary energy demand also fell by 1.2% with the use of fossil fuels also decreasing by 3% in 2019. Renewables made up 12.0% of gross final consumption (the 2020 target was 16%), it is noted that this avoided 5.8 million tonnes of CO₂ emissions and over €500 million of fossil fuel imports. The share of electricity generated from renewable sources increased from 33.2% in 2018 to 36.5% in 2019 (the 2020 target was 40%). Wind generation accounted for 32% of all electricity generated and avoided 3.9 million tonnes of CO₂ emissions.

Section 2.6 of the 2020 Report provides updates surrounding electricity and notes that final electricity demand peaked in 2008 (2,295ktoe) and began falling in the years following this. However, demand started to grow again in 2015, in 2019 demand grew by 2% and surpassed the 2008 record by 6.6% at 2,444ktoe.

Primary energy is the total amount of energy required, including all the energy that is consumed for energy transformation processes such as electricity generation and oil refining. Primary energy is considered by fuel, sector and mode. The following are the main trends in primary energy:

- Fossil fuels accounted for 87% of all the energy used in Ireland in 2019. Demand for fossil fuels fell by 3% in 2019, and was 17% lower than in 2005.
- Coal use decreased by 53% in 2019 and its share of total primary energy requirement fell to 2.6%, down from 10.5% in 2015. Since 2005, coal demand has fallen by 80% (10.8% per annum).
- Total renewable energy increased by 10.3% during 2019. Hydro and wind increased by 28% and 16% respectively. Biomass use fell by 3.9% in 2019 and other renewables increased by 15%. The overall share of renewables in primary energy stood at 11.2% in 2019, up from 10% in 2018.
- Ireland returned to be a net importer of electricity in 2019 for the first time since 2015, importing 55 ktoe.

In terms of energy generation in 2019, the share of renewables in the generation fuel mix increased to 25.7%, compared with 22.3% in 2018 due, mainly, to increased wind generation. In 2019, electricity generated from renewable sources amounted to 11,780 GWh, accounting for 37.6% of gross electricity consumption (compared with 33% in 2018). Wind again accounted for the largest renewable energy generator, furthermore wind energy was the second largest source of electricity generated in 2019 after natural gas.

Wind accounted for 57% of the contribution towards Ireland's renewable energy target in 2019. The peak recorded wind power output was 3,337 MW, delivered on 21 February 2020, this represented 72% of demand at that time. Furthermore, wind also accounted for 85% of renewable energy in 2019. Plate 2-3 below shows the annual growth in installed wind generation capacity and overall cumulative capacity since 2000.

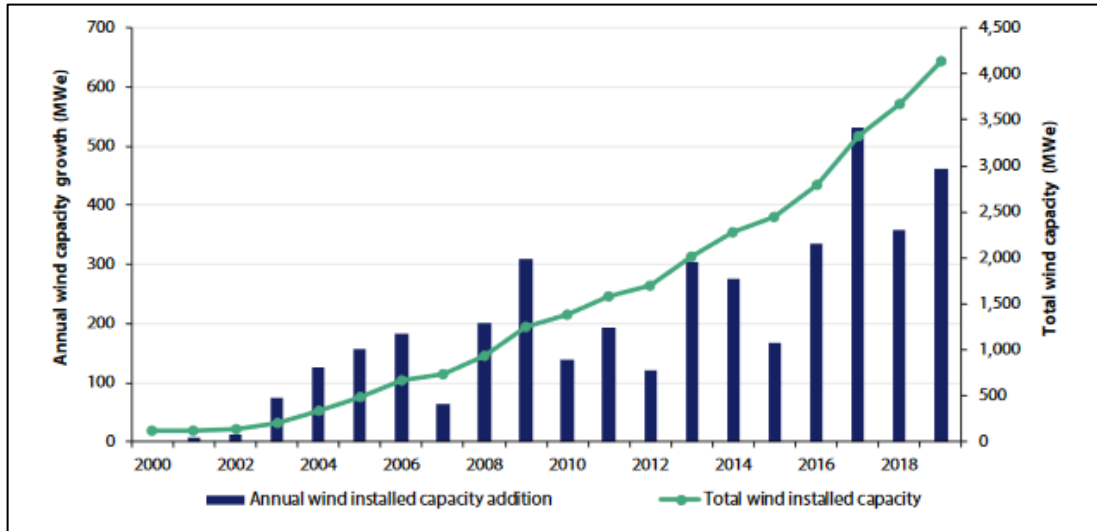


Plate 2-3 Installed Wind Generating Capacity 2000-2019

2.1.5

All-Island Generation Capacity Statement 2020-2029 - EirGrid

The All-Island Generation Capacity Statement 2020-2029 was published by EirGrid in August 2020. Within the key message of the statement it is highlighted that the overall demand is set to increase and is forecast to increase significantly due to the expansion of large energy users including data centres. In Ireland, the growth in electricity demand for the next ten years varies between 33% in the median demand scenario, to 50% in the high scenario. The Median Forecast is generally aligned with EirGrid's Tomorrow Energy Scenarios which predict an overall Energy Requirement for Ireland of approximately 41TWh by 2030

The statement notes that within the Republic of Ireland new wind farms commissioned in 2019 brought the total wind capacity to 4,127 MW contributing to the increase in overall RES-E percentage to 35.7%. The Statement goes on to noted that:

“It can be assumed that Ireland’s renewable targets will be achieved largely through the deployment of additional wind powered generation.”

Furthermore, it is noted that the installed wind capacity within Ireland has increased from 135MW to over 4127MW between 2002 and 2019, this value is set to further increase as Ireland endeavours to meet its renewable targets.

2.1.6 National Energy Policy

2.1.6.1 Introduction

This section of the EIAR provides a breakdown of national energy policy with regards to the proposed development. Under the national policy energy section the following are discussed:

- National Renewable Energy Action Plan 2010;
- White Paper on Energy Policy in Ireland 2015-2030;
- Renewable Electricity Support Scheme RESS 2020; and,
- Programme for Government 2020.

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.

2.1.6.2 National Renewable Energy Action Plan, 2010

Article 4 of Directive 2009/28/EC on the promotion of the use of energy from renewable sources required each Member State to adopt a national renewable energy action plan (NREAP) to be submitted to the European Commission. The NREAP sets out the Member State's national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive.

Ireland's National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and planned measures to deliver on Ireland's 16% target under Directive 2009/28/EC. In relation to wind energy, the NREAP states:

“It is noted that as a country, Ireland has immense potential for the development of renewable energy particularly wind energy, both on and offshore and wave energy. The development and expansion of the use of renewable energy, together with measures aimed at a reduction and more efficient use of energy are important as regards meeting our climate change objectives and priorities, both nationally and at European level. At a high level a significant increase in renewable energy and the protection of the environment are thus mutually reinforcing goals.”

2.1.6.3 White Paper on Energy Policy in Ireland 2015-2030

On 12th May 2014, ‘The Green Paper on Energy Policy in Ireland’ was launched, opening the way for a public consultation process on the future of energy policy in Ireland for the medium to long-term. The paper 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.

The White Paper entitled ‘Ireland's Transition to a Low Carbon Energy Future 2015-2030’, published in December 2015 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 White Paper states that onshore wind continues to be the main contributor of renewable energy, - 18.2% of total generation and 81% of renewable electricity (RES-E) in 2014. The impacts of climate change in the context of EU and national policy refers to the change in climate that is attributable to human activity arising from the release of greenhouse gases into the atmosphere and which is additional to natural climate variability (Department of the Environment, Heritage and Local Government, 2006). In 2008, the Environmental Protection Agency (EPA) published the results of a study entitled ‘*Climate Change – Refining the Impacts for Ireland*’, as part of the STRIVE (Science, Technology, Research and Innovation) Programme 2007 – 2013. This report states that mean annual temperatures in Ireland have risen by 0.7 ° Celsius (C) over the past century. Mean temperatures in Ireland relative to the 1961 to 1990 averages are likely to rise by 1.8 to 4.0° C by the 2050s and by in excess of 2°C by the end of the century due to climate change.

The policy framework sets out a vision for a low carbon future that maintains Ireland’s competitiveness and ensures a supply of affordable energy. The paper advises that a range of policy measures will be employed to achieve this vision and will involve amongst many things, generating electricity from renewable sources of which there are plentiful indigenous supplies and increasing the use of electricity and bio energy to heat homes and fuel transport.

In the White Paper the Department confirmed that onshore wind is the cheapest form of renewable energy in Ireland:

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

2.1.6.4 Renewable Electricity Support Scheme RESS

The Climate Action Plan, published in June 2019, is the Government’s plan to give Irish people a cleaner, safer and more sustainable future. The Plan sets out actions across every sector which will ensure we meet our future climate commitments. A key part of the Plan is a move to 70% renewable electricity by 2030, a measure which will be driven by the introduction of the Renewable Electricity Support Scheme (‘RESS’).

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. Terms and Conditions for the first competition (RESS 1:2020) was published in February 2020 and will provide support to renewable electricity projects in Ireland. It is intended that the RESS will deliver, amongst other policy objectives:

“An ambitious renewable electricity policy to 2030 increasing energy security, energy sustainability and ensuring the cost effectiveness of energy policy”

The Auction Scheme and the ECP framework has now been established and is operational and will facilitate and provide a pathway to realise the for renewable electricity (RES-E) ambition of up to 70% by 2030, that has been established.

2.1.7 Programme for Government 2020

The Programme for Government 2020 was published in June 2020. In relation to climate change the programme recognises that the next ten years are a critical period in addressing the climate crisis. It is an ambition of the programme to more than halve carbon emissions over the course of the decade (2020-2030). The programme notes 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. The programme also recognises the severity of the climate challenge as it clarifies that:

“Climate change is the single greatest threat facing humanity”

With regards to energy the programme notes that the government will implement a new National Energy Efficiency Action Plan to reduce energy use, including behavioural and awareness aspects of energy efficiency such as building and data management. Further, the government are also committed to the rapid decarbonisation of the energy sector, along with this it is noted that the necessary steps will be taken to deliver at least 70% of renewable electricity by the year 2030. The measures to achieve this will include the following:

- Hold the first Renewable Electricity Support Scheme (RESS) auction by the end of 2020, with auctions held each year thereafter, including the first RESS auction for offshore wind in 2021.
- Give cross-government priority to the drafting of the Marine Planning and Development Bill, so that it is published as soon as possible and enacted within nine months.
- Produce a whole-of-government plan setting out how at least 70% renewable electricity generation by 2030 will be delivered and how the necessary skills base, supply chains, legislation, and infrastructure to enable it will be delivered. This new plan will make recommendations for how the deployment of renewable electricity can be sped.
- Complete the Celtic Interconnector to connect Ireland’s electricity grid to France.
- Commence planning for future interconnection with our neighbours.
- Finalise and publish the Wind Energy Guidelines, having regard to the public consultation that has taken place.
- Develop a Solar Energy Strategy for rooftop and ground, based photovoltaics, to ensure that a greater share of our electricity needs is met through solar power.
- Continue Eirgrid’s programme ‘Delivering a Secure, Sustainable Electricity System’ (DS3).
- Strengthen the policy framework to incentivise electricity storage and interconnection.
- Support the clustering of regional and sectoral centres of excellence in the development of low-carbon technologies.
- Invest in research and development in ‘green’ hydrogen (generated using excess renewable energy) as a fuel for power generation, manufacturing, energy storage and transport.

2.1.8 Summary of Compliance with Renewable Energy Policy and Targets

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 Glenard 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.

2.2 Climate Change Policy and Targets

2.2.1 Introduction

This section of the EIAR presents the various policies and targets which relate to climate change. The below headings and sub-headings explore climate change in the context of EU and national policy and are broken down into the following sections:

- Impacts on Climate Change;
- International Policy;
 - United Nations Framework Convention on Climate Change;
 - Kyoto Protocol Targets;
 - Doha Amendment to the Kyoto Protocol;
 - COP21 Paris Agreement;
 - COP25 Madrid- Current Progress
 - Emissions Projections;
- National Policy;
 - National Climate Change Adaptation Framework ;
 - National Adaptation Framework - Planning for a Climate Resilient Ireland 2018;
 - National Policy Position on Climate Action and Low Carbon Development, 2014;
 - Climate Action and Low Carbon Development Act 2015;
 - Report of the Joint Committee on Climate Action Climate Change: A Cross-Party Consensus for Action, March 2019;
 - Report of the Joint Committee on Climate Action Climate Change: A Cross-Party Consensus for Action, March 2019; and,
 - Climate Action Plan, 2019.
 - Climate Action and Low Carbon Development (Amendment) Bill

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 we are in a climate crisis. The proposed development, as a generator of renewable energy, will contribute to the decarbonisation of the energy sector and reduce harmful emissions. In this regard, it is in broad compliance with national and international climate change policy and targets.

2.2.2 Impacts on Climate Change

Climate change, in the context of EU and national policy, refers to the change in climate that is attributable to human activity arising from the release of greenhouse gases into the atmosphere and which is additional to natural climate variability (Department of the Environment, Heritage and Local Government, 2006). In 2008, the Environmental Protection Agency (EPA) published the results of a study entitled 'Climate Change – Refining the Impacts for Ireland', as part of the STRIVE (Science, Technology, Research and Innovation) Programme 2007 – 2013. This report stated that mean annual temperatures in Ireland have risen by 0.7 Celsius (C) over the past century. Mean temperatures in Ireland relative to the 1961 to 1990 averages are likely to rise by 1.4 to 1.8°C by the 2050's and by more than 2°C by the end of the century due to climate change.

Future precipitation changes are less certain to project than temperature but constitute the most important aspect of future climate change for Ireland. The study projects that winter rainfall in Ireland by the 2050's will increase by approximately 10%, while summer rainfalls will reduce by 12 – 17%. Lengthier heatwaves, much reduced number of frost days, lengthier rainfall events in winter and more intense downpours and an increased propensity for drought in summer are also projected. The

STRIVE report on climate change impacts states that Ireland can and must adapt to the challenge of climate change. It notes that:

“Barriers to this, both scientific and socio-economic, are required to be identified and addressed in order that Ireland can be optimally positioned to thrive in a changing world.”

2.2.3 International Policy

2.2.3.1 United Nations Framework Convention on Climate Change

In 1992, the United Nations Framework Convention on Climate Change (UNFCCC), was adopted as a framework for international efforts to combat the challenge posed by climate change. The UNFCCC has over 197 signatory countries and has almost universal membership from the international community. 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.

2.2.4 Kyoto Protocol Targets

Ireland is a Party to the Kyoto Protocol, an international agreement that sets limitations and reduction targets for greenhouse gases for developed countries. It came into effect in 2005, as a result of which, emission reduction targets agreed by developed countries, including Ireland, are now binding.

Under the Kyoto Protocol, the EU agreed to achieve a significant reduction in total greenhouse gas emissions of 8% below 1990 levels in the period 2008 to 2012. Ireland's contribution to the EU commitment for the period 2008 – 2012 was to limit its greenhouse gas emissions to no more than 13% above 1990 levels.

2.2.4.1 Doha Amendment to the Kyoto Protocol

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 1 January 2013 to 31 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.

During the first commitment period, 37 industrialised countries and the European Community committed to reduce GHG emissions to an average of 5% against 1990 levels. During the second commitment period, Parties committed to reduce GHG emissions by at least 18% below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first.

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.

2.2.4.2 Conference of the Parties (COP)21 Paris Agreement

COP21 was the 21st session of the Conference of the Parties (COP) to the UNFCCC. Every year since 1995, 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 closed on 12th December 2015 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. It is balanced as regards adaptation and mitigation, and durable, with a periodical ratcheting-up of ambitions.

2.2.4.3 COP25 Madrid- Current Progress

COP25, the 25th session of the COP, was held between the 2nd and 13th of December 2019 in Madrid. The conference was characterised by repeated warnings from civil society (NGOs and corporates) on emerging evidence and scientific consensus on climate change risk. Specifically, it is noted that there are only ‘10 years left’ before the opportunity of limiting global warming to 1.5°C is no longer feasible. As such, the only scenario that makes it possible is a ‘7.6% reduction of global GHG emissions every year between 2020 and 2030, and to reach net zero emissions by 2050’. However, there was no consensus achieved between States to finalise the operating rules of the Paris Agreement and ensure that it became operational by 2020. Three issues which emerged between States from the COP25 are summarised below:

- There was no uniform consensus between States to raise countries’ climate ambitions, e.g. to make increased commitments in light of growing climate change data. Some States were opposed to imposing any obligation on countries to submit enhanced pledges next year, arguing it should be each country’s own decision. All states must submit a review of their commitments for COP 26 in 2020. At the current level of climate targets, within a decade, the objective of the Paris Agreement will no longer be achievable;
- There was no agreement on finalising Article 6, the foundations for international cooperation to combat climate change. The aim was to establish the rules for new international mechanisms for financing and transferring GHG emission reductions; and
- There was no agreement on financing (Green Climate Fund); specifically, relating to both loss and damage caused by climate change.

Despite the lack of consensus to the above challenges, the COP25 did achieve more limited success in the introduction of the “*San Jose Principles for High Ambition and Integrity of International Carbon Markets*”, which sets out the framework on which a robust carbon market should be built. These 12 no. principles include, but are not limited to:

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

These principles were supported by 23 EU, including Ireland, and Latin American countries, 5 pacific islands and 2 countries in the Caribbean.

In addition, the European Union’s Green Pact was introduced on the 11th of December with agreement of the European Council and all Member States (except Poland) on the ambition of climate neutrality in 2050, supported by a financing plan of €1,000 billion over 10 years.

2.2.4.4 COP26 – Glasgow

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

The key items COP26 seeks to achieve are:

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

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

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

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

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

2.2.4.5 Emissions Projections

In June 2019, the EPA published an update on Ireland’s Greenhouse Gas Emission Projections 2018-2040. The report provides an assessment of Ireland’s progress towards achieving its emission reduction targets set under the EU Effort Sharing Decision (Decision No 406/2009/EU) – i.e. to achieve a 20% reduction of non-Emission Trading Scheme (non-ETS) sector emissions, i.e. agriculture, transport, residential, commercial, non-energy intensive industry and waste, on 2005 levels, with annual binding limits set for each year over the 2013-2020 period.

Greenhouse gas emissions are projected to 2020 using two scenarios; ‘With Existing Measures’ and ‘With Additional Measures’. The ‘With Existing Measures’ scenario assumes that no additional policies and measures, beyond those already in place by the end of 2017 are implemented. The ‘With Additional Measures’ scenario assumes implementation of the ‘With Existing Measures’ scenario in

addition to further implementation of Government renewable and energy efficiency policies and measures, as set out in the NREAP and the National Energy Efficiency Action Plan (NEEAP).

The EPA Emission Projections Update notes the following key trends:

- 2019 greenhouse gas emission projections show total emission increasing from current levels by 1% and 6% by 2020 and 2030, respectively, under the ‘With Existing Measures’ scenario. Under ‘With Additional Measures’, emissions are estimated to decrease by 0.4% and 10% by 2020 and 2030, respectively;
- Under the ‘With Existing Measures’, emissions from Energy Industries are projected to increase by 31% between 2018 and 2030 to 15.4 Mt CO₂eq. Under the ‘With Additional Measures’, emissions between 2018 and 2030 are predicted to decrease by 27% to 8.6 Mt CO₂eq;
- Under ‘With Existing Measures’, approximately 41% of electricity generation is projected to come from renewable energy sources by 2030. In the ‘With Additional Measures’ scenario, it is estimated that renewable energy generation increases to approximately 54% of electricity consumption;
- Agriculture and transport dominate non-ETS sector emissions accounting for 75% and 80% of emissions in 2020 and 2030, respectively. In 2020, the sectors with the largest contribution of emissions are Agriculture, Transport and Energy Industries with 34%, 21% and 20% share in total emissions, respectively, under the With Additional Measures scenario. In 2030, this is projected to change to 38%, 22% and 16% for these sectors, respectively, which reflects the growth in emissions from agriculture and reduction of emissions from power generation; and
- Ireland has exceeded its annual binding limits in 2016 and 2017. However, even using this mechanism, Ireland will still be in non-compliance according to the latest projections.

The 2019 EPA report states that “*A significant reduction in emissions over the longer term is projected as a result of the expansion of renewables (e.g. wind), assumed to reach 41-54% by 2030, with a move away from coal and peat*”. Over the period 2013 – 2020, Ireland is projected to cumulatively exceed its compliance obligations by approximately 10.3 Mt CO₂ (metric tonnes of Carbon Dioxide) under the “*With Existing Measures*” scenario and 9.2 Mt CO₂ under the “*With Additional Measures*” scenario.

2.2.5 National Climate Change Policy

2.2.5.1 Climate Action and Low Carbon Development Act 2015

The Climate Action and Low Carbon Development Act 2015 was signed into law on 10th December 2015. The Climate Action and Low Carbon Act 2015 provides for the establishment of a national framework with the aim of achieving a low carbon, climate resilient, and environmentally sustainable economy by 2050, referred to in the Act as the “national transition objective”.

The Act provides the tools and structures to transition towards a low carbon economy and it anticipates that it will be achieved through a combination of:

- A National Mitigation Plan (to lower Ireland’s greenhouse gas emissions levels); -
- A National Adaptation Framework (to provide for responses to changes caused by climate change);
- Tailored sectoral plans (to specify the adaptation measures to be taken by each Government ministry); and
- Establishment of the Climate Change Advisory Council to advise Ministers and the Government on climate change matters.

2.2.5.2 National Adaptation Framework- Planning for a Climate Resilient Ireland 2018

Ireland's first statutory National Adaptation Framework (NAF) was published on 19th January 2018. The NAF sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The NAF was developed under the Climate Action and Low Carbon Development Act 2015. The NAF builds on the work already carried out under the National Climate Change Adaptation Framework (NCCAF, 2012). It is detailed that under the NAF a number of Government Departments will be required to prepare sectoral adaptation plans and strategies in relation to climate change. The NAF can be broken down as follows:

Chapter 1 provides a summary of observed and projected global climate change and the international and European policy drivers for adaptation to climate change. It also contains a summary of observed and projected climate change impacts in Ireland. The following Key Messages are set out in the NAF:

- *“Warming of the global climate system is unequivocal and it is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century;*
- *Observations show that global average temperatures have increased by 0.85°C (in the range 0.65 to 1.06°C) since 1850;*
- *In recent decades, changes in climate have caused impacts on natural and human systems on all continents and across the oceans;*
- *Increasing magnitudes of warming increase the likelihood of severe, pervasive and irreversible impacts;*
- *Uncertainties exist in relation to the extent and rate of future climate change. Addressing uncertainties is a challenge, but should not be read as an excuse for inaction as there is overall agreement on the robustness of trends and projections;*
- *The impacts and risks of climate change can be reduced and managed through mitigation and adaptation actions;*
- *Changes in Ireland's climate are in line with global trends. Temperatures have increased by about 0.8°C since 1900, an average of about 0.07°C per decade over that period, and changes in precipitation regimes, sea level rise and extreme events (storms, flooding, sea surges and flash floods) are also being observed;*
- *Climate change will have diverse and wide ranging impacts on Ireland's environment, society, economic development, including managed and natural ecosystems, water resources, agriculture and food security, human health and coastal infrastructures and zones; and,*
- *The overall trend in Ireland is consistent with global patterns of change, with a high degree of climate variability and associated uncertainties in relation to extreme events.”*

The Framework quotes the Intergovernmental Panel on Climate Change (IPCC, 2013) in which it was concluded that there is 95% probability that the global warming of the last 50 years is a result of human activities, with the main contribution to this warming coming from the burning of fossil fuels.

Chapter 2 sets out the progress to date on climate change adaptation planning in Ireland, including work undertaken at sectoral and local government level and initiatives involving civil society and the research community.

Chapter 3 provides a number of guiding principles for adaptation at national level. It includes steps for creating an enabling environment for adaptation planning. It sets out the sectors for which adaptation plans under the NAF are to be prepared, along with proposals for local authority or regional level adaptation strategies. Chapter 3 of the framework includes the guiding principles for adaptation, regardless of how successful efforts to mitigate GHG emissions prove to be, the impact of climate change will continue over the coming decades because of the delayed impacts of past and current

emissions. There is no choice, therefore, but to take adaptation measures to deal with the unavoidable impacts of climate change and associated economic, environmental and social costs. This is recognised at international, European Union and national level. The NAF states that:

“Adaptation not only depends on action by all levels of government but also on the active and sustained engagement of all stakeholders, including sectoral interests, the private sector, communities and individuals. Everybody has a role to play in making sure Ireland is taking appropriate adaptation action to achieve a climate resilient future. This is a joint responsibility where “climate proofing” our country is an undertaking for which all of society is responsible and everyone has a role to play.”

Chapter 4 outlines how the Framework will be implemented with revised Governance and reporting arrangements as well as actions and supporting objectives that are to be progressed.

The Framework sets out the key sectors concerned in developing sectoral adaptation plans and includes electricity and gas networks. Building capacity within the sectors to cope with climate change should be a key focus area of emerging sectoral plans.

2.2.5.3 Report of the Joint Committee on Climate Action Climate Change 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 notes that *“Ireland’s performance in meeting international obligations has to date been poor”*. The Committee places concern that predictions of emissions indicate that the state is off track in meeting its 2020 and 2030 targets under the Kyoto protocol and the EU Directives.

The committee recommended that new climate change legislation be enacted by the Oireachtas in 2019. The following recommendations have been listed:

1. A target of net zero economy-wide Green House Gas (GHG) emissions by 2050;
2. A provision for a 2030 target, consistent with the GHG emissions reduction pathway to 2050 to be set by 2020 by Statutory Instrument requiring the formal approval of both Houses of the Oireachtas following receipt of advice from the Climate Action Council;
3. Provision for five-yearly carbon budgets, consistent with the emissions reduction pathway to 2030 and 2050 targets, to be set by Statutory Instrument requiring the formal approval of both Houses of the Oireachtas following receipt of advice from the Climate Action Council;
4. A target for the renewable share of electricity generation of 70% by 2030.

Further to this, the committee acknowledge that the measures which are currently in place along with the measures suggested within the report will not be sufficient in meeting Ireland’s targets.

Chapter 7 of the report outlines the committee’s recommendations for developing Ireland’s capacity in renewable energies and renewable electricity in particular. It is noted that the transformation of Ireland’s energy system will be required for the country to meet its GHG emission targets. To reach net zero emissions by 2050 the report recognises that the country will be required to fully decarbonize electricity generation. Section 7.5 relates to onshore renewable energy generation, it is acknowledged that onshore wind energy is currently the primary source of renewable electricity within Ireland, accounting for 84% of renewable power generated in 2017, it is also detailed that, *‘onshore wind alone will not supply Ireland with sufficient electricity to become self-sufficient, it is evident that it must be used alongside other sources of renewable energy’*.

Under its recommendations, the Committee encourages the upgrading of existing onshore wind turbines where this will yield additional potential. While acknowledging that there are challenges in

relation to securing additional on-shore wind generated renewable energy the Report fully supports the increased provision of on-shore wind farm development at appropriate locations (such as that of the current proposal) and acknowledges that on-shore wind has a pivotal role to play in achieving climate action targets.

2.2.5.4 Climate Action and Low Carbon Development (Amendment) Bill 2021

The Climate Action and Low Carbon Development (amendment) Bill 2021 was signed into Law on the 23rd July 2021. The Bill supports Ireland, in a legal capacity, to move to a climate resilient and climate neutral economy by 2050. It will establish a legally binding framework with clear targets and commitments set in law, and ensure the necessary structures and processes are embedded on a statutory basis to ensure we achieve our national, EU and international climate goals and obligations in the near and long term. The Bill significantly strengthens the framework for governance of climate action by the State in order to achieve national, EU and international climate goals and obligations.

The Bill includes the following elements:

- Places the commitment to achieve a climate neutral economy no later than 2050 on a statutory basis. Introduces system of successive 5-year, economy-wide carbon budgets starting in 2021;
- Strengthens the role of the Climate Change Advisory Council in proposing carbon budgets;
- Provides that the first two carbon budgets proposed by the Climate Change Advisory Council should equate to a total reduction of 51% in emissions over the period to 2030.
- Introduces a requirement to annually revise the Climate Action Plan and prepare at least once every five years a National Long Term Climate Action Strategy ;
- Introduces a requirement for all Local Authorities to prepare individual Climate Action Plans which will include both mitigation and adaptation measures, be updated every five years, Local Authority Development Plans must also align with their Climate Action Plan;
- Providing that the Minister request, within 18 months of the enactment of the Bill each local authority to prepare a Climate Action Plan to include both mitigation and adaptation measures (such plans must be updated not less than once every 5 years) and
- Gives a stronger oversight role for the Oireachtas through an Oireachtas Committee.

2.2.5.5 Climate Action Plan 2019

The Climate Action Plan 2019 (CAP) was published on the 1st of August 2019 by the Department of Communications, Climate Action and Environment. The CAP sets out an ambitious course of action over the coming years to address the impacts which climate may have on Ireland’s environment, society, economic and natural resources. This Plan clearly recognises that Ireland must significantly step up its commitments to tackle climate disruption.

Chapter 1 of the CAP sets out the nature of the challenge which Ireland faces over the coming years. The CAP notes that the evidence for warming of our climate system is beyond dispute with observations showing that global average temperatures have increased by more than 1 °C since pre-industrial times. These changes will cause extensive direct and indirect harm to Ireland and its people, as well as to other countries more exposed and less able than we are to withstand the associated impacts, which are predicted to include:

- Rising sea-levels threatening habitable land and particularly coastal infrastructure,
- Extreme weather, including more intense storms and rainfall affecting our land, coastline and seas,
- Further pressure on our water resources and food production systems with associated impacts on fluvial and coastal ecosystems,
- Increased chance and scale of river and coastal flooding,
- Greater political and security instability,
- Displacement of population and climate refugees,
- Heightened risk of the arrival of new pests and diseases,
- Poorer water quality,
- Changes in the distribution and time of lifecycle events of plant and animal species on land and in the oceans.

It is also recognised within the Plan that in addition to the above many of the pollutants associated with climate change are also damaging to human health.

It is the ambition of the CAP to deliver a step-change in our emissions performance over the coming decade, so that we will not only meet our EU targets for 2030, but will also be well placed to meet our mid-century decarbonisation objectives.

Chapter 7 of the CAP details the plans surrounding electricity. Within Ireland electricity accounting for 19.3% of Ireland’s greenhouse gases in 2017, the following is noted:

“It is important that we decarbonise the electricity that we consume by harnessing our significant renewable energy resources by doing this we will also become less dependent on imported fossil fuels.”

In 2017 within Ireland a total of 30.1% of electricity produced came from renewable sources, the target to be achieved by 2020 is set at 40%. The CAP goes on to note that ‘given our 40% target is based on a percentage of total energy demand, this rising demand makes meeting our 2020 target even more challenging and latest forecasts indicate we may miss this target by 3 to 4 percentage points’. Further to this while decarbonising electricity is a key aspect of the strategy it is noted that this is against the background of rapid projected growth in electricity demand. It is expected that demand for electricity is forecast to increase by 50% above existing capacity in the next decade. Generation electricity builds of a renewable nature rather than fossil fuels has been marked as essential.

The CAP goes on to note that with regards to policy measures to date that they will not achieve the level of decarbonisation required in the electricity sector to meet the 2030 emissions reduction targets, as such it is listed that ‘we must “reduce our electricity sector emissions to 4.5 Mt in 2030”. In relation to emissions the following is noted:

“In 2017, emissions from electricity were 12 Mt and in 2030, despite implementation of Project Ireland 2040 measures, emissions are projected to be 8 Mt. This clearly demonstrates the need for a significant step-up in ambition over existing policy, not only to meet our 2030 targets, but to set us on course to deliver substantive decarbonisation of our economy and society by 2050.”

In the electricity sector, reaching a 70% share of renewable electricity would require 50-55% emissions reduction by 2030.

Under section 7.2 the following targets have been set out to meet the required level of emissions by 2030:

- *“Reduce CO₂ eq. emissions from the sector by 50–55% relative to 2030 Pre-NDP projections*
- *Deliver an early and complete phase-out of coal- and peat-fired electricity generation*

- *Increase electricity generated from renewable sources to 70%, indicatively comprised of:*
 - *at least 3.5 GW of offshore renewable energy*
 - *up to 1.5 GW of grid-scale solar energy*
 - ***up to 8.2 GW total of increased onshore wind capacity***
- *Meet 15% of electricity demand by renewable sources contracted under Corporate PPAs” (emphasis added)*

Achieving 70% renewable electricity by 2030 will involve phasing out coal- and peat-fired electricity generation plants, increasing our renewable electricity, reinforcing our grid (including greater interconnection to allow electricity to flow between Ireland and other countries), and putting systems in place to manage intermittent sources of power, especially from wind.

Section 7.2 of the CAP notes the ‘*measures to deliver targets*’ in which efforts to meet the 2030 ambitions which includes increased harnessing of renewable energy. CAP identifies a need for 8.2GW of onshore wind generation and states that in 2017 there was 3.3GW in place, therefore Ireland needs to more than double its installed capacity of wind generation. Accordingly, the CAP presents clear and unequivocal support for the provision of additional renewable energy generation, and presents yet further policy support for increased wind energy.

The proposed development is in line with the overall provisions of the CAP. The generation of renewable energy from onshore wind will directly assist in Ireland meeting its binding target, specifically the stated target of 8.2GW total of increased onshore wind capacity. Furthermore, the proposed development will contribute in the following ways:

- Aid in the decarbonisation of the energy system (Target- Reduce CO2 eq. emissions from the sector by 50–55% relative to 2030),
- The proposed development can contribute toward achieving 70% renewable electricity by 2030.
- The proposal will increase the penetration of renewable energy into the transmission system .

2.2.6 Strategic Planning Policy Context

2.2.6.1 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 Planning Framework 2018,
 - Key Sustainability Elements of National Planning Framework
- Draft Renewable Electricity Policy and Development Framework, 2016
- Regional Policy
 - Regional Spatial and Economic Strategy Northern and Western Region, 2020
- Local Policy
 - Donegal County Development Plan 2018-2022
- Material Considerations
 - Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change 2017
 - DoEHLG Wind Energy Guidelines 2006
 - Draft Revised Wind Energy Development Guidelines - December 2019
 - Department Circular PL5/2017
 - IWEA Best Practice Guidelines for the Irish Wind Energy Industry 2012

- IWEA Best Practice Principles in Community Engagement and Community Commitment 2013
- Code of Practice for Wind Energy Development in Ireland - Guidelines for Community Engagement 2016
- IWEA Community Engagement Strategy 2018
- Renewable Energy Support Scheme (RESS)
- Forest Service Guidelines

As a renewable energy project, the current proposal is broadly 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 section below.

2.2.6.2 National Policy

2.2.6.2.1 National Planning Framework 2018 - 2040

The National Planning Framework (‘NPF’), published in February of 2018, aims to shape and guide the future growth and development of Ireland up to 2040 and supersedes the National Spatial Strategy 2002-2020 (‘NSS’).

The NPF notes that while the overall quality of the country’s environment is good it is not without challenges. The NPF notes that the manner in which we plan for potential issues is important in the context of sustainability of our environment.

“While the overall quality of our environment is good, this masks some of the threats we now face. Key national environmental challenges include the need to accelerate action on climate change, health risks to drinking water, treating urban waste water, protecting important and vulnerable habitats as well as diminishing wild countryside and dealing with air quality problems in urban areas. It is also important to make space for nature into the future, as our population increases.”

A key aspect of the NPF surrounds the long-term sustainability of the environment, it 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.”

The Government will address environmental and climate challenges through the following overarching aims as listed under ‘Resource Efficiency and Transition to a Low Carbon Economy’:

- Sustainable Land Management and Resource Efficiency
- Low Carbon Economy
- Renewable Energy
- Managing Waste

The NPF notes that the population of Ireland is projected to increase by approximately 1 million people by 2040 and that in order to strengthen and facilitate more environmentally-focused planning at the local level, the NPF states that future planning and development will need to

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

In order to meet legally binding targets agreed at EU level, it is a national objective for Ireland to make a transition and become a competitive low carbon economy by the year 2050. To aid in meeting these targets the National Planning Framework notes that the Government will aim to support the following objectives:

- Integrating climate considerations into statutory plans and guidelines. In order to reduce vulnerability to negative effects and avoid inappropriate forms of development in vulnerable areas.
- More energy efficient development through the location of housing and employment along public transport corridors, where people can choose to use less energy intensive public transport, rather than being dependent on the car.

The NPF highlights that Ireland’s national energy policy is focused on three pillars: (1) sustainability, (2) security of supply and (3) competitiveness. Furthermore it is noted that *“The Government recognise that Ireland must reduce greenhouse gas emissions from the energy sector by at least 80% by 2050, compared to 1990 levels, while at the same time ensuring security of supply of competitive energy sources to our citizens and businesses.”* The NPF notes that our transition to a low carbon energy future requires:

- 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, smartgrids, electric vehicles, buildings, ocean energy and bio energy.
- Legal and regulatory frameworks to meet demands and challenges in transitioning to a low carbon society.

The transition towards a low carbon and climate resilient society is identified as one of the national strategic outcomes to guide the implementation of the NPF. National Policy Objective 55 of the NPF specifically relates to renewable energy, stating it is an objective 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”.

National Strategic Outcome 8-Transition to a Low Carbon and Climate Resilient Society aims to *“Deliver 40% of our electricity needs from renewable sources by 2020 with a strategic aim to increase renewable deployment in line with EU targets and national policy objectives out of 2030 and beyond.”*

The NPF further emphasises that new energy systems and transmission grids will be necessary for a more distributed, more renewables focused energy generation system to harness the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and *“connecting the richest sources of that energy to the major sources of demand”*. The NPF recognises that the development of on-shore and off-shore renewable energy is critically dependent on the development of enabling infrastructure including grid facilities to connect to major sources of energy demand.

2.2.7 Regional Policy

2.2.7.1.1 Regional Spatial and Economic Strategy, Northern and Western Region 2020

The Regional Spatial and Economic Strategy (RSES) provides a high-level development framework for the Northern and Western Region that supports the implementation of the National Planning Framework (NPF) and the relevant economic policies and objectives of Government. It provides a 12-year strategy to deliver the transformational change that is necessary to achieve the objectives and vision of the Assembly.

A key issue for the strategy is how climate change will impact on land-use change and increasing demands on natural resources into the future. The strategy recognises that:

“There is marked evidence that Ireland’s climate is changing with projections for Ireland indicating that there is a likelihood of a rise in sea levels, changes in rainfall events, increased frequency of storm events, changes to air and soil temperate and periods of increased drought.”

Furthermore, it is also recognised that climate change commitments and EU targets mean that power generation, transport and heat increasingly have to be produced from sustainably produced electricity. As an EU member state, as well as a signatory to the UN Paris Agreement, Ireland has committed itself to a reduction of greenhouse gases along with a multitude of other sustainability-related measures. The strategy notes that how we produce our energy is going to play a major role in determining how successful the country is in tackling climate change targets, especially GHG emissions.

Section 4.5.2 of the RSES lists the strategy surrounding ‘renewable energy and low carbon future’. The section opens with the following statement:

“Energy is needed for economic growth, and access to affordable, reliable energy is an essential development objective. Historically most incremental energy demand has been met through fossil fuels, however in future that energy will have to be low-carbon and ultimately zero-carbon. Decarbonisation can and needs to happen and it is an objective of the NPF that Ireland becomes a Low Carbon Economy by 2050. This reflects the Government’s 2014 National Policy Position on Climate Action and Low Carbon Development and is also a binding EU requirement.”

The RSES defines renewable energy as energy developed from sources that are constantly replenished through the cycles of nature and, unlike fossil fuels, are not finite. It is regarded as important that the region sets out its ambitions concerning renewable energy in this context and shows its ability to help contribute to achieving national targets. This will build on the present provision of renewable energy success from sources including hydropower and onshore wind energy infrastructure. The RSES considers the region to have a unique natural endowment of ample carbon-neutral, energy supplies that gives an opportunity of forging and leading the new clean economy of the future. To achieve the noted policies and targets the strategy noted that the following must be encouraged:

- Practices to reduce the production of CO₂;
- Increase in our energy security;
- Reduced cost of electrical power for domestic purposes, and regional development of value-adding of primary production;
- Increased industry development of modern high-efficiency building materials;
- Increased efficiency in the development of renewable energy production;
- Improved efficiency of freight and passenger transport systems;
- Greater protection of areas of high primary production value;
- Greater protection of environmentally sensitive areas; and,

- Increase cluster of R&D focused on technological application to renewable energy.

The following regional policy objectives have been included under this section:

- **RPO 4.19:** The NWRA shall co-ordinate the identification of potential renewable energy sites of scale in collaboration with Local Authorities and other stakeholders within 3 years of the adoption of the RSES. The identification of such sites (which may extend to include energy storage solutions) will be based on numerous site selection criteria including environmental matters, and potential grid connections.
- **RPO 4.17:** To position the region to avail of the emerging global market in renewable energy by: [inter alia]
 - stimulating the development and deployment of the most advantageous renewable energy systems”
- **RPO 4.18:** Support the development of secure, reliable and safe supplies of renewable energy, to maximise their value, maintain the inward investment, support indigenous industry and create jobs.

Section 8.2 of the RSES notes the strategy surrounding the electricity grid network, again it is recognised that the West region is particularly rich in renewable energy resources. Within the region it is noted that the existing transmission network is predominantly lower capacity in this regard developing the grid will enable the transmission system to safely accommodate more diverse power flows from surplus regional generation and also to facilitate future growth in electricity demand. The following relevant regional policy objectives are listed:

- **RPO 8.1-** The Assembly support the development of a safe, secure and reliable electricity network, and the transition towards a low carbon economy centred on energy efficiency and the growth projects outlined and described in this strategy.
- **RPO 8.3-** The Assembly support the necessary integration of the transmission network requirements to allow linkages with renewable energy proposals at all levels to the electricity transmission grid in a sustainable and timely manner.
- **RPO 8.4-** That reinforcements and new electricity transmission infrastructure are put in place and their provision is supported, 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. Ensure that development minimises impacts on designated areas.

2.2.7.2 Local Policy

2.2.7.3 Donegal County Development Plan 2018-2024

The Donegal County Development Plan 2018-2024 (CDP) is the principal policy instrument used to manage change in land use within the County. The Plan sets out the Planning Authority’s strategic land use objectives and policies for the overall development of the County over the 6 year life of the Plan (to 2024) and beyond to a 20 year timeframe (to 2038). This spatially based strategic framework seeks to manage and coordinate change in land use in the County setting out a clear view ahead in development terms together with clear priorities to drive growth. On the subject of the development of energy within the County it is an aim of the CDP to:

“facilitate the development of a diverse energy portfolio by the sustainable harnessing of the potential of renewable energy including ocean energy, bioenergy, solar, wind and geothermal, along with the sustainable use of oil and gas, and other emerging energy sources in accordance with National Energy policy and guidance. It is also an aim to facilitate the appropriate development of associated infrastructure to enable the harnessing of these energy

resources and to promote and facilitate the development of Donegal as a Centre of Excellence for Renewable Energy.”

The CDP outlines that in terms of wind speed and its consistency the County is ‘ideally located on the North-West Atlantic coast’. Under the County Development Plans Economic Development Strategy it is the express target to maximise appropriate development to support and create a sustainable local renewable energy marketplace as follows:

- **ED-O-9:** *To maximise the appropriate development of the county’s renewable energy resources and to support and facilitate the creation of a sustainable local renewable energy market place in Donegal from where energy operators can transport, store, trade and export their “local renewable energy product” to domestic and non-domestic markets subject to environmental designations and amenity considerations.*

The Wind Energy Map (Map 8.2.1) of the County Development Plan was included in the plan which identified three policy/zone areas for the development of wind farms within the county. In November 2018, a judicial review of the plan resulted in the High Court omitting Map 8.2.1 from the County Development Plan. The following note was listed within the County Development Plan which references the above:

“By Order made on the 5th day of November, 2018, in proceedings bearing Record Number 2018/533JR between Planree Limited, Applicant and Donegal County Council, Respondent, certain provisions of the County Donegal Development Plan 2018-2024, being Section 6.5(c) and (f) of the Wind Energy standards at Part B: Appendix 3, Development Guidelines and Technical Standards and Map 8.2.1 as contained in the County Donegal Development Plan 2018-2024 as published were ordered to be deleted and/or removed from the County Donegal Development Plan 2018-2024. The Development Plan should be read in light of the Order in question pending any possible future variation of same.”

Donegal County Council at the time of lodgement have yet to publish a revised Wind Energy Map following on from this omission.

Although it is fully acknowledged that map 8.2.1 has been set aside and is no longer part of the CDP the current site is located wholly within an area which was designated as ‘*Open to Consideration*’.

There are a range of provisions within the CDP that support the provision of renewable energy, including the following objectives:

- **E-O-1:** *“To develop sustainably a diverse renewable energy portfolio to meet demands and capitalize on the County’s competitive locational advantage.”*
- **E-O-4:** *“To facilitate a sustainable and diverse mix of developments which limit the net adverse impacts associated with global warming such as promoting renewable energy, the growth of local farm produce and the promotion of sustainable modes of public transport.”*
- **E-O-5:** *“To ensure that wind energy developments meet the requirements and standards set out in the DEHLG Wind Energy Development Guidelines 2006, or any subsequent related Guidelines (or as may be amended).”*
- **E-O-6:** *“To ensure that wind energy developments do not adversely impact upon the existing residential amenities of residential properties, and other centres of human habitation (as defined at Para. 6.6, ‘Wind Energy’, Appendix 3, Development Guidelines and Technical Standards, Part B, Objectives and Policies of the Plan).”*
- **E-P-10:** *“It is a policy of the Council that development proposals for wind energy shall be in accordance with the requirements of the Wind Energy Development Guidelines: Guidelines for Planning Authorities, 2006 (or as may be amended).”*

The following is also a relevant consideration:

- **E-P-2:** *“It is a policy of the Council to facilitate the appropriate development of renewable energy from a variety of sources, including, hydro power, ocean energy, bioenergy, solar, wind and geo-thermal and the storage of water as a renewable kinetic energy resource, in accordance with all relevant material considerations and the proper planning and sustainable development of the area.”*

The following policies are also listed within the Plan specifically in relation to Wind Energy and renewable energy:

- **E-P-10:** *“It is a policy of the Council that development proposals for wind energy shall be in accordance with the requirements of the Wind Energy Development Guidelines: Guidelines for Planning Authorities, 2006 (or as may be amended).”*
- **E-P-14:** *“It is a policy of the Council to support voluntary initiatives from developers/renewable energy operators for local community benefits, in accordance with other policies of this Plan and the proper planning and sustainable development of the area. (Examples could include; shared ownership of development proposals, financial dividends, the development of improved local infrastructure, the donation of land for community use, such as playing fields, the development or refurbishment of local community facilities, the creation of rights of way/cycle, walking and bridleways, educational tours and promotional days).”*
- **E-P-17:** *“It is a policy of the Council to ensure that all roads associated with the development of wind farms are maintained or repaired at the developer’s expense to the satisfaction of the Council.”*
- **E-P-18:** *“It is a policy of the Council that potential impacts on natural, built and cultural heritage including impacts on archaeological monuments and watercourses are assessed as part of renewable development proposals. Where such impacts are identified, mitigation measures such as buffer zones, separation distances and access arrangements should be employed as appropriate.”*
- **E-P-19:** *“It is a policy of the Council to facilitate the development of combined wind and wave, tidal and/or hydro proposals in areas where there are no significant environmental, heritage or landscape constraints, to generate and export renewable energy and to generate local revenue subject to the proper planning and sustainable development of the area.”*
- **E-P-20:** *“It is the policy of the Council that all proposals for renewable energy development will have regard to the cumulative effect of the development on the environment when considered in conjunction with other existing and permitted developments in the area.”*
- **E-P-21:** *“It is the policy of the Council that all applications for renewable energy projects will ensure that details of the proposed grid connection and all associated infrastructure are considered in the Environmental Impact Statement (EIS) and Natura Impact Statement as may be required.”*

Part B, Appendix 3, Section 6 of the CDP sets out the development guidelines and technical standards for wind energy. Within this section the following considerations are set out:

- *“6.1- Wind energy proposals shall be screened for Environmental Impact Assessment and Appropriate Assessment of the potential impacts of the proposal on the host environment. Where a development does not require an EIA then an Environmental Report should be prepared”.*

In this regard an Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS) and Appropriate Assessment Screening Report (AASR) have been prepared in relation to the proposed development and have been included with the application for the consideration of An Bord Pleanála.

- **6.2- The following should also be considered in the preparation of wind energy proposals:**
 - *Geological assessment of the locality. (Assessed in Chapter 8 of this EIAR)*

- *Geotechnical assessment of the overburden and bedrock.* (Assessed in Chapter 8 of this EIAR)
- *Assessment of local and migratory flora and fauna.* (Assessed in Chapter 6 and Chapter 7 of this EIAR along with the Natura Impact Statement)
- *A Peat Stability Assessment to determine the possibility of a bog burst or landslide.* (Assessed under Chapter 8 of this EIAR)
- *Assessment of potential visual impacts.* (Assessed under Chapter 12 of this EIAR)
- **6.3** *No fencing should occur on any part of the site except for around ancillary developments such as substations.*
This is noted and fencing will only be in place around ancillary developments.
- **6.4** *All grid cable connections within the site should be undergrounded.*
All internal cabling for the Glenard Wind Farm on site are to be constructed underground.
- **6.5** *Wind turbines must meet the requirements and standards set out in the DEHLG Wind Energy Development Guidelines 2006, or any subsequent related Guidelines and in addition must not be located within:*
 - a) *The zone of visual influence (ZVI) of the Glenveagh National Park.* (The proposed development site is located approximately 40km from Glenveagh National Park)
 - b) *The zone of influence/flight path at Donegal Airport.* (The proposed development site is located approximately 67km from Donegal Airport)
 - c) *Areas identified as locations where wind farm development would not be acceptable as identified on map 8.2.1, chapter 8 of the County Development Plan 2018-2024.* (6.5c has been omitted from the CDP following a High Court Order)
 - d) *Special Areas of Conservation (SACs) nor Special Protection Areas (SPAs).* (The closest SAC is located 7.7km from the proposed development site and the closest SPA is located 3.7km from the proposed development site.
 - e) *The 6 Fresh Water Pearl Mussel (S.I. 296 of 2009) catchments contained in the Freshwater Pearl Mussel Sub-Basin Management Plans for Clady, Eske, Glaskeelin, Leannan, Owencarrow and Owenea.* (Based on the CDP mapping the proposed development site is in excess of 20km from a Freshwater Pearl Mussel Catchment site).
 - f) ~~*A set back distance of ten times the tip height of proposed turbines from residential properties and other centres of human habitation.*~~ (6.5f has been omitted from the CDP following a High Court Order)
- **6.6** *Glenveagh National Park: Zone of Visual Influence*
Definition:-
The environmental and visual character of Glenveagh National Park consists of the geographic extent of the park and its immediate environs. The implementation of the relevant policy should not be interpreted as relating to lands with limited physical or visual connection to the park. The onus is on the applicant to demonstrate the extent of the potential impact a proposed wind energy development has on the National Park.
Centre of Human Habitation: Definition:-
'Centre of human habitation' includes schools, hospitals, churches, residential buildings or buildings used for public assembly.'
(The proposed development site is located approximately 40km from Glenveagh National Park)

As is evident from the above the proposed development satisfies the guidelines and technical standards set out under Part B, Appendix 3 of the CDP.

2.2.7.4 Landscape Appraisal

Chapter 7 of the County Development Plan states the following in relation to landscape.

“The landscape of County Donegal is distinctive, unique and synonymous with the identity of County Donegal, and the extensive coastline and seascape is an integral and constituent element. The nature of the landscape is such that it is a contributory factor in the economic draw owing to its quality as a place to live and work, attracting Foreign Direct Investment and associated population growth.”

The landscape of the County has been categorised into three layers of value and are illustrated on Map 7.1.1 of the County Development Plan. The definitions for each of the areas of landscape value and classification are as followed:

Areas of Especially High Scenic Amenity (EHSA)

Areas of Especially High Scenic Amenity are sublime natural landscapes of the highest quality that are synonymous with the identity of County Donegal. These areas have extremely limited capacity to assimilate additional development.

Areas of High Scenic Amenity (HSA)

Areas of High Scenic Amenity are landscapes of significant aesthetic, cultural, heritage and environmental quality that are unique to their locality and are a fundamental element of the landscape and identity of County Donegal. These areas have the capacity to absorb sensitively located development of scale, design and use that will enable assimilation into the receiving landscape and which does not detract from the quality of the landscape, subject to compliance with all other objectives and policies of the plan.

Areas of Moderate Scenic Amenity (MSA)

Areas of Moderate Scenic Amenity are primarily landscapes outside Local Area Plan Boundaries and Settlement framework boundaries, that have a unique, rural and generally agricultural quality. These areas have the capacity to absorb additional development that is suitably located, sited and designed subject to compliance with all other objectives and policies of the Plan.

It should be noted that the CDP does not consider any part of County Donegal to be of low scenic amenity.

The majority of the site is located in an area designated as MSA- Areas of Moderate Scenic Amenity with aspects of the site being located in an area designated as HSA- Areas of High Scenic Amenity. It must also be noted that the vast majority of the area within the EIAR study boundary designated as HSA is covered with non-native commercial coniferous plantation. This type of landcover would not usually be considered of scenic amenity as the colour, shape and uniform texture of this landscape element appears as incongruous to the existing landscape.

The following objectives have been included under the CDP:

NH-0-4: To ensure the protection and management of the landscape in accordance with current legislation, ministerial and regional guidelines and having regard to the European Landscape Convention 2000.

NH-0-5: To protect, manage and conserve the character, quality and value of the landscape having regard to the proper planning and development of the area, including consideration of the scenic amenity designations of this plan, the preservation of views and prospects and the amenities of places and features of natural, cultural, social or historic interest.

Furthermore the following policies have also been included under the CDP:

- **NHP-7:** Within areas of 'High Scenic Amenity' (HSC) and 'Moderate Scenic Amenity' (MSC) as identified on Map 7.1.1: 'Scenic Amenity', and subject to the other objectives and policies of this Plan, it is the policy of the Council to facilitate development of a nature, location and scale that allows the development to integrate within and reflect the character and amenity designation of the landscape.
- **NHP-8:** It is the policy of the Council to safeguard the scenic context, cultural landscape significance, and recreational and environmental amenities of the County's coastline from inappropriate development.
- **NHP-9:** It is the policy of the Council to manage the local landscape and natural environment, including the seascape, by ensuring any new developments do not detrimentally impact on the character, integrity, distinctiveness or scenic value of the area.
- **NHP-13:** It is a policy of the Council to protect, conserve and manage landscapes having regard to the nature of the proposed development and the degree to which it can be accommodated into the receiving landscape. In this regard the proposal must be considered in the context of the landscape classifications, and views and prospects contained within this Plan and as illustrated on Map 7.1.1: 'Scenic Amenity'.
- **NHP-16:** It is a policy of the Council to protect and enhance the landscape character, culture and heritage of the Islands whilst facilitating appropriate development. All development must be considered in the context of the landscape classification contained within this Plan and as illustrated on Map 7.1.1: Scenic Amenity

Section 12 of this EIAR contains a detailed Landscape and Visual Assessment of the Proposed Development and conclusions in relation to landscape, and visual effects are set out in sections 12.9.

2.2.7.5 Donegal County Council Climate Adaption Strategy 2019

The Donegal County Council's Climate Change Adaptation Strategy 2019-2024 sets out the strategic priorities, measures and responses for adaptation in County Donegal over the next five years; as required by the Climate Action and Low Carbon Development Act. The aim of this first strategy is to identify the risks, challenges and opportunities that need to be considered and to take coherent coordinated action. The Strategy is based on four main themes: Critical Buildings and Infrastructure, Natural and Cultural Capital, Water Resource & Flood Risk Management and Community Services and provides for many actions that will be developed and implemented over the next five years. The strategy recognises that climate change is a critical challenge for Donegal as it is for countries globally. It will result in a range of impacts across a wide number of sectors that are likely to exacerbate existing vulnerabilities.

In setting out their approach the strategy focuses on three main areas:

- **Engage**
"The first key step in our approach is improving our understanding and communication of the risks from a changing climate across the Local Authority departments, businesses, communities and individuals. The Strategy aims to engage with communities and place them at the centre of this adaptation process, and to encourage broad participation and collective decision making on how our citizens want to adapt to the challenges and opportunities, and how we as a Local Authority can support this change. Tailored training and development programs will be essential components to aid the delivery of the plan"
- **Plan**
"The planning process will include details on how our climate is changing, potential impacts and opportunities, as well as the identification of areas at risk to inform planning and decision-making. The compilation of inventories and baselines with the assistance of relevant state agencies and third level academic institutions will assist operations as the adaptation journey of Donegal County Council progresses. The integration of climate

change principles throughout future plans and procedures will be fundamental in strengthening our resilience.”

➤ **Adapt**

“The success of this plan will be measured by our ability to develop and implement co-ordinated responses to climate risk where needed. Many adaptation actions are already underway at Donegal County Council and mainstreaming adaptation measures into all levels of operations and policies within Donegal County Council will be an important aspect of implementing climate action at local level. The team will develop a progress report to document observed climatic changes or impacts in the County; successfully implemented actions; barriers to the implementation of actions; new sources of funding; and windows of opportunity for climate action.”

The adaptation strategy acknowledges that there has been significant climate changes in Ireland and lists the observed changes within Ireland as follows:

- Temperatures are rising across all seasons
- The timing and spatial distributions of precipitation is changing.
- Sea levels are rising.
- The frequency and intensity of extreme weather events are changing.

Further long-term impacts which include further temperature increases, precipitation becoming less certain, the frequency of extreme wind events are expected to increase along with sea level increases. The strategy notes that Ireland’s climate is changing and the impacts on Donegal are already being felt. Sea levels are rising, and more extreme rainfall and storm events are becoming more frequent. In this regard the strategy sets out that Donegal have already been taking steps to improve aspects such as energy efficiency and the reduction of carbon emissions. The vision for the County has been set out as follows:

“A County that understands how climate change will affect the region, our communities, heritage, economic prosperity and well being and actively working together to reduce our exposure to climate risks and to capture new opportunities”

The adaptation strategy sets out a framework of actions and measure that Donegal County Council will undertake to embed climate adaptation into all local authority areas, it lists several adaptation actions and goals to support climate change actions and ensure that climate considerations are to the fore in consideration of all County functions. Accordingly, it does not contain specific sectoral policies or guidance.

2.2.8 Compliance with Local Policy

The proposed Glenard renewable energy development should favourable permission be issued will aid in the development of a sustainable and diverse renewable energy portfolio to meet the demands of County Donegal as well as significantly contributing to the Irelands binding energy and climate targets. As is noted in the above sections and referred to under E-P-2 ‘it is a policy of the Council to facilitate the appropriate development of renewable energy from a variety of sources...in accordance with all relevant material considerations and the proper planning and sustainable development of the area’. In this regard as is demonstrated throughout the planning application documentation that the proposed development is entirely suitable with regards to the context of the site. As such favourable consideration should be given and permission granted. Furthermore, the Biodiversity and Landscape sections of this EIAR demonstrate that the proposal will not give rise to significant adverse impacts on natural heritage, landscape or visual amenity. The Noise and Shadow flicker assessments also show that the proposed development will not give rise to significant adverse impacts on residential amenity. The proposed development also complies with the requirements of Part B, Appendix 3, Section 6 of the CDP as listed previously above relating to the development guidelines and technical standards for wind energy.

2.2.9 Other Relevant Considerations/Guidance

2.2.9.1 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. 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.

The proposed development has had due considerations to these guidelines in its design and preparation. In this regard this EIAR considers all relevant potential Environmental impacts that could arise (Chapter 5 of the Guidelines), and the design of the Proposed Development has followed the design principles established in Chapter 6. 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. The Department of the Environment, Community and Local Government published proposed revisions to the guidelines in December 2013 as part of a targeted review relating to Noise, Proximity and Shadow Flicker for discussion. The Department is continuing this review. Publication of elements of a “*preferred draft approach*” were issued in June 2017. The four key aspects of the preferred draft approach are set out below in Section 2.2.9.3.

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

In July 2017, the 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. 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:

1. *“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;*
2. *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*
3. *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.”

2.2.9.3 Department Circular PL5/2017

On the 3rd of August 2017, the 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 new circular (PL05/2017) reconfirms that this continues to be the advice of the Department.

The Department 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 2006 Wind Energy 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.

2.2.9.4 Draft Revised Wind Energy Guidelines - December 2019

The Department of Housing, Planning and Local Government published the *Draft Wind Energy Guidelines* (referred to as the Draft Revised 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 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 2019 guidelines in mind (for example in relation to set back from dwellings and layout).

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 Revised 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 Project 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 Glenard Wind Farm 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.

2.2.9.5 IWEA Best Practice Guidelines for the Irish Wind Energy Industry 2012

The Irish Wind Energy Association (IWEA) 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 farm 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).

2.2.9.6 IWEA Best Practice Principles in Community Engagement and Community Commitment 2013

Following on from the IWEA published Best Practice Guidelines in March 2012, the Association 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 in Section 2.6.1 below.

2.2.9.7 **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.

2.2.9.8 **Commission for Regulation of Utilities: Grid Connection Policy 2018**

The Commission for Regulation of Utilities (CRU) (previously the Commission for Energy Regulation (CER)) launched a new grid connection policy in March 2018 for renewable and other generators, known as ECP-1, which seeks to allow “*shovel ready*” projects that already have a valid planning permission, connect to the electricity networks. The principal objective which guides this decision is to allow those projects to have an opportunity to connect to the network, along with laying the foundations for future, more regular batches for connection. Applicants for new connection capacity under ECP-1 was published in August 2019 and under ECP-2 published in September 2020. Round ECP-2.2 is due to be published in September 2021, and ECP-2.3 in September 2022

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.

With the ECP2 ruleset now published and with a timeline set for the next three rounds of applications there is a clear pathway for the Project to secure a grid connection in a timely manner, subject to receipt of planning permission.

2.2.9.9 **Renewable Energy Support Scheme (RESS)**

The Climate Action Plan, published in June 2019, is the Government’s plan to give Irish people a cleaner, safer and more sustainable future. The Plan sets out actions across every sector which will ensure we meet our future climate commitments. A key part of the Plan is a move to 70% renewable

electricity by 2030, a measure which will be driven by the introduction of the Renewable Electricity Support Scheme ('RESS').

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 70% by 2030, that has been established.

2.2.9.10 Forest Service Guidelines

The Forest Service is responsible for ensuring the development of Forestry within Ireland 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 works (felling/planting) associated with the proposed development will be carried out under the relevant guidance from the Forestry Service.

2.3 Planning History

This section of the EIAR sets out the planning history of the study area and other wind farm sites within the wider area. It also describes other infrastructure projects which are existing or proposed within the wider area.

There has been one previous planning application which has been lodged at the site of the proposed development. The noted planning application (Pl. Ref. 20/51328) relates to the retention of an existing lattice meteorological mast (80m in height) and associated instrumentation and works. This planning application was granted by Donegal County Council on the 13/05/2021.

Table 2-1 below sets out the planning applications identified in relation to wind energy (and associated works) within approximately 5km of the proposed development site. Table 2-1 below is provided to highlight the wind energy infrastructure in closest proximity to the Proposed Development. Table 2-2 extends to include wind energy developments out to 20km which in combination with those shown in Table 2-1 are those assessed within the Landscape and Visual Impact Assessment contained in Chapter 12 of this EIAR:

Table 2-1 Other Wind Farm Developments Within Approximately 5km of the Proposed Development

Planning Ref.	Description	Status
Meenkeeragh Wind Farm		
02/5176	Construction of a wind farm comprising a total of 3 no. wind turbines, anemometry mast and associated works.	Granted by DCC 09/07/2003
06/70068	Amendment to existing planning ref 02/5176 for an increase in the tip height and rotor diameter from 93 metres to 99.5 metres tip height and from rotor diameter 66 metres to rotor diameter 71 metres	Granted by DCC 06/04/2006
08/70572	Extension of Duration for 02/5176	Granted by DCC 17/07/2008
14/51295	2 no. wind turbines, one turbine with a blade tip height of up to 126 metres; one turbine with a blade tip height of up to 77 metres ; and all associated works.	Granted by DCC 13/02/2015
15/50117	One wind turbine with a blade tip height of up to 126 metres together with all associated works.	Granted by DCC

Planning Ref:	Description	Status
		Granted by An Bord Pleanála on the 24/09/2015 (05E.244753)
16/51540	Substation building with all ancillary development and associated site works; as located within the planning approved wind turbine assembly area granted under planning authority register reference 14/51295.	Granted by DCC 13/01/2017
17/50842	Amendment to permitted development under planning application register reference 10/60277 to a proposed hub height of 50 metres and a blade diameter of up to 53 metres with an overall blade tip height of 76.5 metres.	Refused by DCC 25/08/2017
18/50200	Amendment to the previously approved single storey substation building of 21.84sqm, (reference 16/51540) by increasing the floor area by a proposed 10.30sqm to a total overall floor area of 32.14sqm; with all ancillary development and associated site works	Granted by DCC 02/05/2018
Some Hill Wind Farm		
02/4127	Erection of a temporary windspeed measuring mast	Granted by DCC 10/06/2002
02/5087	Windfarm comprising of 16 no. turbines, 60 metre tower height, 66 metre rotor diameter and associated site access roadways	Granted by DCC 20/03/2003
04/5070	Extension to an approved wind farm for a single 1.75 MW wind turbine of 60 metres tower/hub height and 66 metres blade diameter	Refused by DCC 18/06/2004
04/5366	Construction of 3 no wind turbines 57.75 metre hub height and 70 metre rotor diameter, access trackways and associated site development.	Granted by DCC 17/09/2004
04/5703	Construction of a 110kV substation and an access track	Granted by DCC 20/12/2004
04/5843	Erection of a single wind turbine of 57.75 metres of tower/hub height and 71 metres blade diameter (ground to blade height of 93.25 metres) ring main unit kiosk, turbine hardstand, access track, drainage and all associated works and ancillary developments.	Granted by DCC 15/04/2005
04/11197	Amendment to existing planning permission (ref 04/5366) for the increase in tower height for the 3 no. permitted wind turbines from 57.75 metres tower height to 63 metres.	Granted by DCC 11/03/2005
04/11198	Amendment to existing planning permission (ref 02/5087) for the increase in tower height of the 16 no permitted wind turbines from 60 metre tower height to 63 metre tower height and rotor diameter from 66 metres to 70 metres.	Granted by DCC 11/03/2005
05/70095	Amendment to an approved single wind turbine height (ref 04/5843) for a single wind turbine to 64.5 metres tower/hub height (with a 71 metre blade diameter as approved) and ground to blade - tip height of 100 metres.	Granted by DCC 06/10/2005
06/72245	Erection of a proposed windspeed measuring mast.	Granted by DCC 22/02/2007

Planning Ref:	Description	Status
07/70231	Construction of an electrical control building with all associated works and ancillary development.	Granted by DCC 11/05/2007
10/70075	10-year planning permission for a proposed wind turbine and an electrical control building (already permitted under planning permissions ref 07/70231; 05/70095; 04/5843 and 04/5070 for a single wind turbine and electrical control building). The proposed wind turbine will have a blade tip height of 121 metres.	Granted by DCC 29/11/2010
11/70276	Alterations to the existing station, consisting of the erection of transformer and associated transformer bay, and associated electrical equipment.	Granted by DCC 18/10/2011
16/50335	Ten-year duration for a proposed two wind turbine development with a blade tip height of up to 119 metres and associated works. Use of the approved access track and access permitted under planning permission reference 10/70075 for an adjacent wind turbine.	Granted by DCC 13/04/2017
16/50829	Alterations to the existing station.	Granted by DCC 21/07/2016
18/50746	Amendment to a permitted wind turbine (10/70075) to change turbine geometry from an approved: hub height from 80m up to a maximum proposed 84m; an overall blade diameter from 82m to up to a maximum of 100m; and a proposed blade tip height from that approved of 121m up to a proposed maximum 125m; and for power megawatt output of 2.5MW.	Granted by DCC 13/08/2018
Glackmore Hill (Three Trees & Aught)		
00/4283	Construction of wind farm consisting of 9 wind turbines, a wind measuring mast and electrical sub-station.	Refused by DCC 04/05/2000
01/4815	Construction and operation of wind farm consisting of 5 no. wind turbines, wind measuring mast and electrical substation.	Granted by DCC 31/12/2001
03/5088	Erection of 1 no. wind turbine of up to 65m hub height and up to 52m rotor blade diameter, access track, entrance, control building and ancillary site works.	Granted by DCC 07/11/2003
05/70367	Amendment of planning permission and condition 1a (planning ref 03/5088) for 1no wind turbine of up to 65 metres hub height, to increase the rotor blade diameter to 71 metres with a new blade tip height of up 100.50 metres.	Granted by DCC 02/12/2005
06/72448	Extension for duration of Plan.Reg.No.01/4815	Granted by DCC 16/02/2007
08/70059	Relocation of a single wind turbine (as previously approved planning ref 03/5088 and 05/70367) turbine hardstands, control building with security fence; access road; and all ancillary development and associated site works.	Granted by DCC 11/04/2008
09/70409	Retention Permission: Relocation of wind turbine from that approved: (b) amended access road layout: (c) amended turbine hardstand layout: (d) changes to location and design of control building: (e) on site borrow pit and related ancillary development and associated site works as largely pertaining to granted planning permission ref 08/70059.	Granted by DCC 15/12/2009

Planning Ref:	Description	Status
09/70415	Wind energy development comprising 1 no. 2.3 megawatt (mw) wind turbine with a blade tip height of 100.5 metres and all associated works.	Granted by DCC 22/02/2010
09/70602	Extension for duration of Plan.Reg.No.01/4815	Granted by DCC 12/02/2010
10/70022	Development of an electrical control building, with enlarged hardstand beside existing electrical control building, for wind energy purposes with all associated site works and related ancillary development.	Granted by DCC 12/04/2010
10/70504	For extension for duration of Plan.Reg.No.01/4815	Granted by DCC 28/01/2011
11/70191	10-year planning permission for development of a 14-turbine wind farm hardstanding, an electrical compound and substation building. associated site roads and site works. it is proposed to source all stone from an on-site borrow pit.	Granted by DCC 11/11/2013
12/50876	Extension of duration. for wind farm consisting of 5 no. wind turbines, measuring mast and ESB substation	Granted by DCC 24/01/2013
13/50819	Amendments to planning permission 01/4815 which was granted for a windfarm consisting of 5 no. wind turbines, measuring mast and ESB substation (as extended most recently by planning permission 12/50876) and the amendments will provide for: (a) reduction in the number of wind turbines from 5 to 2. (b) increase in this hub height by 10 metres from 64 to 74 metres.	Granted by DCC 24/01/2013
13/51549	Extension of duration for amendments to planning permission 01/4815 which was granted for a windfarm consisting of 5 no. wind turbines, measuring mast and ESB substation (as extended most recently by planning permission 12/50876) and the amendments will provide for: (a) reduction in the number of wind turbines from 5 to 2. (b) increase in this hub height by 10 metres from 64 to 74 metres.	Granted by DCC 23/01/2014
13/51550	Extension of duration for wind farm consisting of 5 no. wind turbines, measuring mast & ESB substation.	Granted by DCC 23/01/2014
15/50070	Development of a section of underground 33kv electrical cable to connect two sections of the consented Aught wind farm (planning ref. 11/70191).	Granted by DCC 24/04/2015
16/51334	(a) two E82 wind turbines, with a hub height of 78m, blade diameter of 82m and blade tip heights of 119m (b) an access haul route (c) a substation.	Granted by DCC 14/12/2016
16/51729	10-year duration for; (a) retention and completion permission of existing wind turbine foundation, access track, drainage and hardstand area, (b) proposed additional hardstand area with drainage and proposed cabling, (c) proposed E82 wind turbine of 119 metres total blade tip height, turbine transformer and with all ancillary development and associated site works.	Granted by DCC 10/03/2017
19/52025	(1) retention and completion of existing access track leading to permitted turbines (pa reg ref 16/51729 and 16/51334); (2) proposed track-side drainage and cabling and (3) all ancillary development and associated site works.	Granted by DCC 25/03/2020
Flughland		

Planning Ref:	Description	Status
01/4715	Erection of 40-meter-high anemometer mast.	Granted by DCC 30/10/2001
01/5029	Erection of a three-turbine wind farm; substation with control building; access tracks; hard stands; related site works and services.	Granted by DCC 26/08/2002
03/4056	Development of 2 no. 1.75 mw wind turbines, hub height of up to 55m and blade diameter of up to 72m, access tracks, hardstands, associated siteworks and ancillary development as an extension to an approved 3 turbine wind farm.	Granted by DCC 17/04/2003
03/4056	2 no. 1.75 mw wind turbines, hub height of up to 55m and blade diameter of up to 72m, access tracks, hardstands, associated siteworks and ancillary development as an extension to an approved 3 turbine wind farm.	Granted by DCC 17/04/2003
04/4298	Amend an approval permission for the development of 2no wind turbines from an approved hub height of 55 metres (ref no 03/4056) to a proposed 60 metre hub height.	Granted by DCC 19/07/2004
04/4320	Amendment to approved planning permission for the development of 3no. wind turbines from an approved height of 55 metres (ref 01/ 5029) to a proposed 60 metre hub height.	Granted by DCC 28/06/2004
06/70327	Amendment of planning permission for wind turbines to a proposed 67 metres hub height, and blade radius of 40 metres, or 80 metres diameter, with overall blade tip height of 107 metres in lieu of approved planning permission of a hub height of 60 metres for five wind turbines with respect to amendment of condition no 1 of planning ref 04/4298 & 03/4056 for two wind turbines and amendment of condition no 2 of planning permission ref 04/4320 & 01/5029 for three wind turbines.	Granted by DCC 19/05/2006
06/72184	Erection of 2 no. wind turbines and all associated site works and ancillary developments within the townland.	Granted by DCC 16/02/2007
07/70809	Erection of 2 no. wind turbines and all associated site works and ancillary developments.	Granted by DCC 06/09/2007
08/70772	Erection of 1 no. permanent meteorological mast of 65 metres in height with internal access road to be utilised for the limited purpose of monitoring wind and climate conditions for the development referenced in planning applications 06/72184 & 07/7080.	Granted by DCC 03/11/2008
Crockahenny		
95/901	Erection of one 30m wind monitoring mast.	Granted by DCC 20/11/1995
97/322	Construction of windfarm involving erection of 10 no. wind turbines	Granted by DCC 08/09/1997
97/322	Erection of a 38kV electric line from an existing line to proposed windfarm substation.	Granted by DCC 08/09/1997
Carrowmore Wind Farm		
13/51311	Erection of a wind measuring pole not to exceed 40 meters high.	Granted by DCC 08/01/2014

Planning Ref:	Description	Status
13/51311	Construction of a meteorological measuring mast 60 metres in height, extension of existing trackway and all associated site works.	Granted by DCC 08/01/2014
18/50380	10-year planning permission consisting of the construction of a single wind turbine comprising steel tower, nacelle and composite fibre rotor blades with a blade tip height of up to 124.9 metres, including ancillary development and associated works	Refused by DCC 03/05/2018
18/51230	6 no. three bladed wind turbines with a maximum base to blade tip height of up to 124.9 metres and will include turbine transformers; 1 no. permanent lattice anemometer "met" mast of 80 metres height; 1 no. electrical 38kv substation with control building, 2 no. spoil deposition areas; upgrade of 3 no. existing site entrances; 2 no. temporary construction compounds; 2 no. temporary borrow pits and with all other ancillary and associated development and infrastructure including general and excavation works and a 38kv underground electrical cable extending circa. 17,620 metres in length, from the wind energy site control building/electrical compound to the existing 110kv Trillick substation, in Ballynahone townland, Buncrana.	Refused by DCC 03/05/2018 Granted by An Bord Pleanála ABP-35861-19 20/04/2021
Fahan		
14/51149	Construction of two wind turbines with a hub height of up to 85 metres, a rotor blade diameter of up to 82 metres, and thus a blade tip height of up to 126 metres; and all ancillary development and associated site works	Granted by DCC 06/01/2015
17/51265	Construction of a single storey control building/20kv substation to facilitate 2 no. approved wind turbines (planning reference: 14/51149).	Granted by DCC 08/11/2017
19/50660	Extension of duration for 14/51149	Refused by DCC 21/06/2019
Garrymore Wind Farm		
11/40003	Erection of a single 2.3 MW wind-turbine with hub height of 64 metres, a rotor diameter of 71 metres and base to blade tip height of 98.140 metres. the proposed wind turbine will also include a turbine hardstand, a new access road, drainage, underground communication and power cables and all associated site works and ancillary development.	Granted by DCC 12/07/2011
16/50297	Extension of Duration for 11/40003	Granted by DCC 21/04/2016
Colpey Rock Wind Turbine		
10/70075	Application for a new 10 year planning permission for a proposed wind turbine and electrical control building	Granted by DCC 22/10/2010
Meenkeeragh Buncrana Wind Turbine (Tony Doherty)		
18/51856	A10 year planning permission for a proposed wind turbine with a 30-year operational life	Refused by DCC 01/08/2019

Table 2-2 below sets out the planning applications identified in relation to wind energy developments (and associated works) outside the 5km buffer and within 20km of the proposed development site: the Windfarm applications set out and table 2-2 below have occurred within a 20 kilometer radius of the proposed development site, this area and range of wind farm developments (inclusive of the infrastructure

set out in table 2-1 above) are those which have been considered to inform the landscape and visual impact assessment of the project as set out in Chapter 12 of this EIAR.

Table 2-2 Other Wind Farm Developments outside the 5km buffer and within 20km of the Development Site

Planning Ref.	Description	Final grant
01/5124	Erection of 8 no v66 vestas wind turbines, 60 metre hub height & 66 metre rotor diameter, 40 metre monitoring mast, 4.5 metre wide access tracks, foundations & substation building	Granted by DCC Granted by An Bord Pleanála (05.130376) 16/01/2003
02/4310	Development of 2 wind turbines, hub height of up to 65m and blade radius of up to 25.3m, access road extension and associated works as an extension to the existing 8 turbine wind farm	Granted by DCC 22/10/2002
02/4667	Development of 10 no. 850kw wind turbines, hub height of 50m and blade diameter of 47m, access roads and associated works as an extension to the existing 8 turbine wind farm	Granted by DCC 13/02/2003
02/4925	Erection of 1 wind turbine with hub height to 50m and blade radius to 23.5 access road extension and associated works as an extension to the existing 8 turbine windfarm	Granted by DCC 24/04/2003
03/5570	Amendments to rotor blade diameters from an approved 47 metres to a proposed 55 metres diameter (27.5 metres blade radii) in respect of a previously approved planning permission (ref. no:02/4925) for 1 approved wind turbine	Granted by DCC 13/04/2004
03/5571	Amendments to rotor blade diameters from an approved 47 metres to a proposed 55 metres diameter (27.5 metres blade radii) in respect of a previously approved planning permission (ref no. 02/4310) for 1 approved wind turbine	Granted by DCC 13/04/2004
03/5674	Amendments to rotor blade diameters from an approved 47 metres diameter to a proposed 55 metres diameter (27.5 metre blade radii) in respect of a previously approved planning permission ref 02/4667 for 10 approved wind turbines	Granted by DCC 13/04/2004
03/7650	Construction of 6no. wind turbines, 44 metre hub height, and 52 meter rotor diameter, access trackways 4.5 metres in width, a 20kv substation building, a stone quarry of 0.1 hectare, and associated site development works	Granted by DCC 01/03/2004
08/70130	Extension of duration (02/4925): Erection of 1 wind turbine with hub height to 50m and blade radius to 23.5, access road extension and associated works as an extension to the existing 8 turbine windfarm.	Granted by DCC 28/03/2008
08/70131	Extension of duration (02/4667): Erection of 10 no. 850kw wind turbines, hub height of 50m and blade diameter of 47m, access roads and associated works as an extension to the existing 8 turbine wind farm	Granted by DCC 28/03/2008
09/70150	Extension of duration (03/5571): Amendments to rotor blade diameters from an approved 47 metres to a proposed 55 metres diameter (27.5 metres blade radii) in respect of a previously approved planning permission (ref no. 02/4310) for 1 approved wind turbine. details of work carried out.- construction of site roads, drainage & culverting, dusting etc	Granted by DCC 15/05/2009
09/7051	Extension of duration (03/5570): Amendments to rotor blade diameters from an approved 47 metres to a proposed 55 metres diameter (27.5 metres blade radii) in respect of a previously approved planning permission (ref. no:02/4925) for	Granted by DCC 15/05/2009

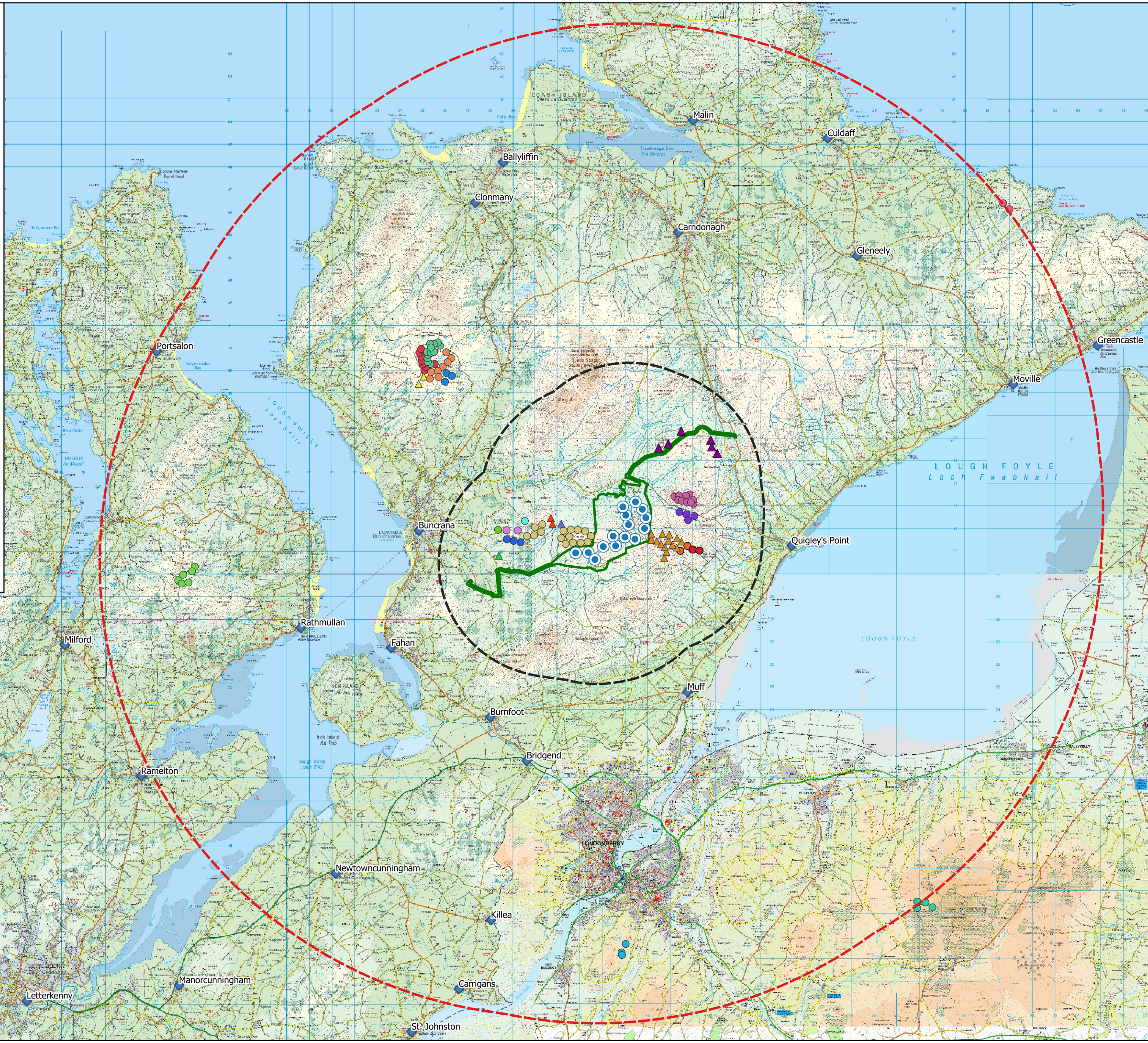
Planning Ref.	Description	Final grant
	1 approved wind turbine, details of all work carried out - construction of site roads, drainage & culverting, ducting etc.	
09/70152	Extension of duration (03/5674): Amendments to rotor blade diameters from an approved 47 metres diameter to a proposed 55 metres diameter (27.5 metre blade radii) in respect of a previously approved planning permission ref 02/4667 for 10 approved wind turbines. details of all work carried out - construction of site roads, drainage & culverting, ducting, etc.	Granted by DCC 14/05/2009
09/70448	Grant of a 10 year planning permission for development of an extension to the existing eight turbine beam hill wind farm, in the townland of Sladran & Shandrim, Buncrana, Co Donegal. This development will consist of four(4) vestas v80 electricity generating wind turbines with a hub height of 67 metre and a rotor diameter of 80 metres, giving a overall height of 107 metres, hardstandings, an extension to the electrical compound, and substation building, 12,000m3 borrow pit associated site roads and site works. The proposed output capacity of the extension is 8 mw.	Granted by DCC 18/12/2009
11/70240	Erection of an 800kw wind turbine 60 metres high with a blade diameter of 48 metres and any associated site works.	Refused by DCC 12/08/2011
11/40003	Erection of a single 2.3 MW wind-turbine with hub height of 64 metres, a rotor diameter of 71 metres and base to blade tip height of 98.140 metres. the proposed wind turbine will also include a turbine hardstand, a new access road, drainage, underground communication and power cables and all associated site works and ancillary development. Extension of Duration for this permission was granted under 16/50297 on the 21/04/2016	Granted by DCC 12/07/2011
12/50488	Grant a ten year planning permission for the construction, operation and decommissioning of a wind farm of up to two number wind turbine generators to export electricity to the national grid. Each turbine will be up to 78 metres to hub height and up to 83m in rotor diameter with an associated crane hardstanding. The works will also require the construction of an electrical substation, underground cabling, and access tracks to each turbine and ancillary services	Granted by DCC 26/03/2014
12/50701	Construction of a wind s with a hub height up to 80 metres, a rotor blade diameter of up to 90 metre, and thus a blade tip height of up to 125 metres	Granted by DCC 08/07/2013
18/51856	10-year planning permission for a proposed wind turbine with a 30-year operational life from the date of commissioning. the proposed wind turbine site will consist of 1 no. three bladed wind turbine with a maximum base to blade tip height of up to 119.33 metres	Refused by DCC Refused by An Bord Pleanála (ABP – 305235-19) 23/07/2020

Figure 2-1 illustrates the locations of all existing, permitted and proposed wind turbines within 20km of the proposed Glenard Wind Farm site which are used to inform the cumulative visual assessment provided within Chapter 12 of this ELAR.

Table 2-3 below lists non-renewable energy development existing and approved projects as well as planning applications pending a decision within approximately 2km of the proposed locations of turbines within the proposed development. Here a 2km distance from wind farm development has been

Other WF's Within 20km

- ▲ Aught - Permitted
- Beam Hill - Existing
- ▲ Carrowglen - Permitted
- Clondermot - Existing
- ▲ Colpey Rock - Permitted
- Cooly - Existing
- Crockahenny - Existing
- Drumlough Hill Extension - Existing
- Drumlough Hill I - Existing
- Flugland - Existing
- Glackmore - Existing
- ▲ J. McCarron Wind Turbine - Permitted
- Lurganboy I - Existing
- ▲ Malkell - Permitted
- Meenaward - Existing
- Meenkeeragh I - Existing
- Meenkeeragh II - Existing
- Meenkeeragh III - Existing
- Monnaboy - Existing
- ▲ Sladran - Permitted
- Some Hill I - Existing
- Some Hill II - Existing
- Three Trees - Existing



Map Legend

- EIAR Site Boundary
- Proposed Turbine Locations
- 5km Core Site Buffer
- 20km Core Site Buffer
- ◆ Settlements



Drawing Title	
Other WF's within 20km	
Project Title	
190114 - Glenard Windfarm	
Drawn By	Checked By
SD	EM
Project No.	Drawing No.
190114	Fig 2-1
Scale	Date
1:160000	27.01.2022

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considered for operational and construction / decommissioning purposes as a conservative buffer to identify potential sensitive receptors and cumulative projects in the non-renewable energy category that should be considered in the context of the proposed development.

Table 2-3 Other Developments in the Vicinity of the Development

Planning Ref.	Description	Final grant
92/14	Erection of dwelling & septic tank.	Granted by DCC (21/02/1992)
92/1363	Erection of dwelling & septic tank.	Granted by DCC (13/01/1993)
93/75	Demolition of existing dwelling and construction of new dwelling with septic tank.	Granted by DCC (14/08/1995)
93/1165	Erection of temporary classroom in the grounds of Lower Illies national school.	Granted by DCC (29/11/1993)
94/1778	Erection of dwelling and septic tank.	Granted by DCC (27/01/1995)
95/623	Erection of domestic shed.	Granted by DCC (26/06/1995)
95/851	Erection of single storey dwelling house and garage with septic tank.	Granted by DCC (14/08/1995)
95/1781	Erection of single storey dwelling and garage with septic tank.	Granted by DCC (08/01/1996)
96/840	Erection of bungalow with septic tank.	Granted by DCC (23/09/1996)
96/932	Erection of dormer bungalow with septic tank.	Granted by DCC (19/08/1996)
96/989	Erection of domestic shed.	Granted by DCC (27/08/1996)
96/1942	Erection of a single storey dwelling house with septic tank.	Granted by DCC (13/01/1997)
98/1195	Erection of dwelling house with septic tank.	Granted by DCC (17/08/1998)
99/1838	Erection of dwelling with septic tank.	Granted by DCC (15/08/1999)
01/4255	Erection of dwelling house with septic tank.	Granted by DCC (25/06/2001)
01/4261	Erection of sheep shed with slatted tank.	Granted by DCC (25/06/2001)
01/4802	Erection of dwelling house with septic tank.	Granted by DCC (02/12/2001)
02/4156	Change of house type to a two storey dwelling house with septic tank.	Granted by DCC (27/05/2002)
03/4687	Erection of a one and a half storey dwelling with septic tank	Granted by DCC (05/09/2003)
03/4899	Erection of 2 no dwelling houses with septic tanks	Granted by DCC (21/11/2003)
04/674	Erection of domestic garage to rear of dwelling and erection of enclosed porch to front of dwelling	Granted by DCC (13/08/2004)
04/755	Erection of a two storey dwelling house, domestic garage, septic tank and percolation area with associated site works.	Granted by DCC (04/01/2005)
04/5157	Erection of a dwelling house with septic tank.	Granted by DCC (13/08/2004)

Planning Ref.	Description	Final grant
05/299	Erection of 1 no. dwelling and septic tank.	Refused by DCC (02/06/2005)
05/344	Erection of dwelling, septic tank, effluent treatment system and associated site works.	Granted by DCC (21/06/2005)
05/70003	Erection of 1no dwelling wastewater treatment system and all associated site works.	Granted by DCC (22/09/2005)
05/70920	Erection of a dwelling with septic tank.	Granted by DCC (16/03/2006)
06/71022	Erection of agricultural shed.	Granted by DCC (23/10/2006)
06/70334	Erection of 1no dwelling with wastewater treatment system.	Granted by DCC (28/07/2006)
06/71375	Erection of a dwelling and septic tank system.	Granted by DCC (24/05/2007)
06/71391	Erection of a dwelling and septic tank system.	Granted by DCC (24/05/2007)
06/71856	Erection of a slatted shed and silage bay with associated works.	Granted by DCC (14/12/2006)
06/72206	Erection of a slatted agricultural shed.	Granted by DCC (22/02/2007)
06/72279	Construction of a slatted cattle shed with all associated site works.	Granted by DCC (01/03/2007)
07/70485	Erection of an agricultural slatted sheep shed and sheep handling facility with all associated site works within existing farmyard complex	Granted by DCC (14/06/2007)
07/70594	Erection of a slatted shed and tank.	Granted by DCC (05/07/2007)
07/70669	Erection of a two storey dwelling and septic tank.	Refused by DCC (15/06/2007)
07/70754	Erection of a two storey dwelling house with wastewater treatment plant.	Refused by DCC (04/07/2007)
08/70118	Existing wood chipping facility and associated works.	Granted by DCC (15/09/2008)
08/70132	Change of house type from that granted under planning ref 07/70351. the amendments will consist of 2 no bay windows to front elevation.	Refused by DCC
08/70145	Erection of an extension to existing dwelling. the extension will consist of 2no bedrooms, 1no en-suite and additional family room to the sides of the dwelling.	Granted by DCC (24/04/2008)
08/70299	Erection of a two storey dwelling with effluent treatment system with associated site works.	Granted by DCC (29/09/2008)
08/70320	Erection of an agricultural sheep shed with all associated site works within existing farmyard complex.	Granted by DCC (02/05/2008)
08/70921	Amendments to permission granted under planning ref 06/71375. the amendments will consist of change of house type previously granted.	Granted by DCC (08/01/2009)
09/70318	Erection of a two storey dwelling with effluent treatment plant and domestic garage.	Granted by DCC (25/01/2010)
11/70007	Erection of an agricultural hay shed/store.	Granted by DCC (11/04/2011)

Planning Ref.	Description	Final grant
12/70177	Demolition of existing clubhouse buildings and the erection of a single storey clubhouse, car parking facilities, wastewater treatment system, all associated site works & connection to existing services.	Granted by DCC Refused by ABP (14/06/2013)
13/51048	Renovations and extension to an existing dwelling to provide additional residential accommodation including rooms in the roof space.	Granted by DCC 14/04/2014
15/51712	Development of a new water pumping station comprising a pump house building, a water storage chamber and all associated facilities and site development works.	Granted by DCC (29/03/2016)
16/50838	Demolition of existing dwelling and construction of a two storey dwelling with effluent treatment system, domestic garage and all associated site development works.	Granted by DCC (20/12/2016)
16/50951	Construction of a two storey dwelling with effluent treatment system, domestic garage and all associated site development works.	Granted by DCC (07/04/2017) (Permission altered under Pl.ref.18/50096)
18/50096	Alteration of previously granted dwelling under planning ref:16/50951	Granted by DCC 18/04/2018
18/50226	Erection of single storey dwelling.	Refused by DCC (06/04/2018)
18/50873	Erection of a two storey dwelling and detached garage together with an onsite sewage treatment system and associated works	Granted by DCC 05/12/2018
19/50241	A domestic garage and all associated works	Granted by DCC 15/05/2019
20/51980	Construction of a dwelling house with detached garage and wastewater treatment plant	Granted by DCC 22/02/2021
21/50134	Retention of (1) domestic shed (208.2m ²) with covered clothes drying/storage area (42.9m ²) to the rear of existing dwelling and (2) agricultural shed (486.5m ²)	Granted by DCC 8/07/2021
21/50576	Erection of a dwelling house and detached garage together with an onsite sewage treatment system and associated works.	Granted by DCC 15/07/2021

Finally, a review of all projects (existing and permitted) within 500 meters of the grid connection route have been reviewed. The 500 meter distance from the grid connection route reflects a generous and conservative range in terms of identifying permissions which may have the potential for cumulative effects with regard to each topic in this EIAR having regard to the nature of the grid connection works (i.e. construction and operation and decommissioning of underground cabling). The construction/decommissioning works (trench digging and laying of cable) are small scale and will only have very localised effects hence impacts will not arise at distances greater than 500m. Furthermore operational impacts will not arise as the cabling will be underground and surfaces left consistent with what was previously in place. Many of the noted applications relate to agricultural developments and/or single residential developments. Table 2-4 below lists those existing and approved projects as well as planning applications pending a decision identified within 500m of the grid connection works.

Table 2.1 Other Developments Within 500 Meters of the Grid Connection Route

Planning Ref.	Description	Final grant
91/102	Erection of dwelling and septic tank.	Granted by DCC 22/04/1991
98/2119	Erection of a dwelling house with septic tank.	Granted by DCC 09/11/1998
99/300	Erection of dwelling with septic tank.	Refused by DCC 18/03/1999
99/301	Erection of dwelling with septic tank.	Granted by DCC 03/05/1999
99/299	Erection of dwelling with septic tank.	Granted by DCC 03/05/1999
99/3294	Erection of storey and half dwelling and septic tank.	Granted by DCC 28/11/1999
99/3764	Erection of 110kV outdoor type transformer station to include one 110kV end mast and four 38kV end masts a 38kV busbar one 110kv transformer and associated 110kV and 38kV structures and equipment control building septic tank "bio-unit" percolation area.	Granted by DCC Granted by ABP 25/07/2000
99/4724	Retention of temp. mobile home with Puraflow water effluent treatment system.	Granted by DCC 21/02/2000
00/4866	Erection of dwelling house and septic tank.	Refused by DCC 31/08/2000
01/4280	Erection of dwelling house and septic tank.	Granted by DCC 02/07/2001
01/4910	Erection of dwelling house and septic tank.	Granted by DCC 02/09/2002
01/5119	Retention of buildings and structures and connection to existing septic tank.	Granted by DCC 11/03/2002
02/4664	Erection of domestic garage/shed.	Granted by DCC 20/09/2002
03/4565	Rection of 2 no dwellings with effluent treatment plants.	Granted by DCC 21/11/2003
03/5299	Extension to our existing dwelling to provide conservatory to the side and an additional bedroom to the rear.	Granted by DCC 22/12/2003
03/5512	Alterations to the existing trillick 110kV electrical substation consisting of a 110kV busbar and 110 kV line bay one no 17 meter high lattice steel tower to facilitate connection to 110kV lines site developments works consisting of foundations retaining walls and cable ducts.	Granted by DCC 02/02/2004
04/4619	Erection of two storey dwelling house with septic tank.	Granted by DCC 05/11/2004
04/5889	Erection of a dwelling with septic tank,	Granted by DCC 05/01/2005
05/4610	Erection of a dwelling house with septic tank.	Granted by DCC 14/10/2005
05/70785	Erection of a cattle shed with an underground slurry tank	Granted by DCC 24/02/2006
06/70411	(1) a new rifle range incorporating a firing shelter and target backdrop (2) retention of 9no floodlights.	Granted by DCC 02/06/2006
06/70435	Erection of a dwelling with effluent treatment plant and domestic garage.	Granted by DCC 04/08/2006

Planning Ref.	Description	Final grant
06/70620	Erection of light industrial units/warehousing, wastewater treatment plant, new access roadway and all associated site works.	Refused by DCC 26/05/2006
06/70731	Erection of a dwelling house with septic tank together with associated site works.	Granted by DCC 14/07/2006
06/70766	Construction of an agricultural shed.	Granted by DCC 21/07/2006
06/70896	Erection of a dwelling house with sewage treatment plant.	Granted by DCC 11/08/2006
06/71380	Demolition of existing dwelling and erection of a dwelling with attached domestic garage and septic tank	Granted by DCC 28/09/2011
06/71797	Erection of an agricultural shed with underground slurry tank.	Granted by DCC 30/11/2006
06/72409	Erection of an agricultural shed.	Refused by DCC 16/02/2007
07/70245	Alterations to the existing 110kV electrical transformer station, consisting of a 110kV busbar extension, 110kV voltage transformer , 100kV voltage transformer bay, 38kv surge arresters & 110kV neutral surge arrester, 38kv busbar extension, booster transformer, cable sealing ends, circuit breakers, voltage transformers,110kV neutral earthing switch. site development works consisting of foundations and drainage.	Granted b DCC 17/05/2007
07/70700	Erection of a retirement dwelling with Envirocare wastewater treatment system.	Granted by DCC 27/07/2007
07/70789	Erection of an agricultural shed.	Granted by DCC 03/12/2007
07/70796	Erection of a domestic garage and associated siteworks.	Granted by DCC 13/08/2007
08/70755	Retention planning permission for the following (a) to retain existing conservatory to side of dwelling (b) to retain existing utility/ study to rear of dwelling (c) to retain existing double garage/store to side of dwelling.	Granted by DCC 28/10/2008
08/70677	Erection of a storey and half dwelling house and domestic garage/shed with ancillary first storage area and septic tank together with all associated works.	Granted by DCC 29/09/2008
08/70872	Erection of a two storey dwelling with effluent treatment plant and domestic store.	Granted by DCC 23/03/2009
08/70913	Erection of a storey and a half dwelling house and domestic garage/shed with auxiliary first floor storage area and septic tank together with all associated works.	Granted by DCC 02/01/2009
09/70387	Revised house type & revised site layout to previously granted under planning ref 07/71341 with connection to existing services and associated siteworks.	Granted by DCC 23/11/2009
10/70029	Erection of a two storey dwelling house with detached garage and wastewater treatment plant.	Granted by DCC 24/06/2010
10/70142	Bored well and ancillary works in lieu of connection to the public water supply permitted under ref 05/4610.	Granted by DCC 30/07/2010
10/70147	Erection of a two storey dwelling with treatment plant and domestic garage.	Granted by DCC 26/10/2010
10/70390	Erection of a two storey dwelling with septic tank and domestic garage.	Granted by DCC 13/12/2010
11/70002	Erection of a garage.	Granted by DCC

Planning Ref.	Description	Final grant
		28/03/2011
11/70037	Erection of a 2 storey dwelling with treatment plant and domestic garage.	Granted by DCC 06/05/2011
12/70031	(a) repositioning of existing dwelling from that approved under planning application ref 00/4364. (b) amend elevations from that approved under planning ref 00/4364. (c) repositioning of site entrance and driveway. (d) roadside hedge setback distance. (e) existing shed/store/kennels to the north west of the site. (f) septic tank and revised location of percolation in-lieu of sewage treatment system approved under planning ref 00/4364.	Granted by DCC 15/05/2012
12/70211	Extension of Duration- Erection of a storey and a half dwelling with effluent treatment plant and domestic garage.	Granted by DCC 26/07/2012
12/70222	Extension of Duration- Revised house type and revised site layout to previously granted under planning ref 07/71341 with connection to existing services and associated siteworks.	Granted by DCC 26/07/2012
14/51065	Extension of Duration- Erection of a dwelling house with integrated garage and a sewage treatment system and all associated siteworks	Granted by DCC 23/10/2014
15/50549	Erection of a two storey dwelling house with detached garage and wastewater treatment plant.	Granted by DCC 18/06/2015
16/50888	Construction of a new single storey detached bungalow dwelling and installation of a new wastewater treatment plant; along with associated siteworks and connections to existing services.	Granted by DCC 25/11/2016
17/50397	The reclamation of farm lands by horizontal drainage using baled tyres.	Refused by DCC 10/05/2017
19/50720	Change of house type previously permitted 10/70029 to provide for a single storey dwelling house with permitted waste water treatment system, together with revised finished level and associated works.	Granted by DCC 31/07/2019
21/50351	(1) demolition of existing stone wall steads (2) erection of a dwelling with wastewater treatment system & percolation area, connection to public services and all associated works	Granted by DCC 21/05/2021

2.4

Scoping and Consultations

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 project, when alterations are still easily incorporated into the design. 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 application site and the proposed development, was prepared by MKO and circulated in August 2019. MKO requested the comments of the relevant personnel/bodies in their respective capacities as consultees with regards to the EIAR process. In March 2020, a follow up request was circulated to those bodies that had not responded to the initial request.

As part of the constraints mapping process, which is detailed in Section 3.5.1 of Chapter 3 of this EIAR, telecommunications operators were contacted between May and July 2019 in order to determine the presence of telecommunications links either traversing or in close proximity to the site of the proposed development. All operators that were contacted were also issued the scoping report in August 2019.

2.4.1 Scoping Replies

Table 2-4 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 December 2021 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 Tables 2-4.

Table 2-2 Scoping Replies

Ref	Consultee	Date of Response
1	An Taisce	No response received to date
2	Bat Conservation Ireland	No response received to date
3	BirdWatch Ireland	Response received 16/08/2019
4	Commission for Regulation of Utilities	No response received to date
5	Broadcasting Authority of Ireland	Response received 08/10/2019
6	Commission for Communications Regulation	No response received to date
7	Department of Agriculture, Food and the Marine	Response received 11/09/2019
8	Department of Communications, Climate Action and the Environment	No response received to date
9	Department of Defence	Response received 16/08/2019
10	Department of Culture, Heritage and the Gaeltacht	Response received 15/01/2020
11	Department of Transport, Tourism & Sport	No response received to date
12	EirGrid	No response received to date
13	Failte Ireland	Response received 26/08/2019
14	Forest Service	No response received to date
15	Geological Survey of Ireland	Response received 22/08/2019
16	Health Service Executive	No response received to date
17	Inland Fisheries Ireland	Response received 22/08/2019
18	Irish Aviation Authority	No response received to date
19	Irish Peatland Conservation Council	No response received to date

Ref	Consultee	Date of Response
20	Irish Red Grouse Association	No response received to date
21	Irish Raptor Study Group	No response received to date
22	Irish Water	No response received to date
23	Irish Wildlife Trust	No response received to date
24	Roads Service- Donegal County Council	No response received to date
25	Water Services- Donegal County Council	No response received to date
26	Environment Section- Donegal County Council	No response received to date
27	Heritage Officer- Donegal County Council	No response received to date
28	Donegal Airport	No response received to date
29	City of Derry Airport	Initial response received 04/09/2019 Follow up response received 02/04/2020
30	NS Share Project Coordinator	No response received to date
31	Office of Public Works	No response received to date
32	The Heritage Council	No response received to date
33	Tetra Ireland Communications Limited	Response received 23/08/2019
34	Transport Infrastructure Ireland	No response received to date
35	Waterways Ireland	No response received to date
36	RTE 2m	Response Received 19/08/2019
37	Virgin Media Ireland	Response received 20/08/2019
38	Derry and Strabane District Council	Acknowledgement received 19/08/2019 Formal response received 26 th May 2020
39	ENET	Response received 20/08/2019
40	Eir	Response received 07/06/2019 Response received 19/08/2019
41	ESB Telecoms	Response received 22/05/2019

Ref	Consultee	Date of Response
		Response received 29/08/2019
42	Imagine Group	Response received 21/05/2019 Response received 16/08/2019
43	Three	Response received 21/05/2019 Response received 19/08/2019
44	Viatel	Response received 21/05/2019
45	Vodafone Ireland	Response received 21/05/2019

Table 2-5 sets out the detail of consultation responses received from those bodies as relevant and notes where they have been addressed in this EIAR. 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 2-3 Expanded Consultee Responses

No.	Consultee	Comment	EIAR Section
1	BirdWatch Ireland	Receipt of scoping document confirmed	N/A
2	Broadcasting Authority of Ireland	BAI does not perform an in-depth analysis of the effect of wind turbines on FM networks. They are not aware of any issues from existing windfarms into existing FM networks. The proposed windfarms are not located close to any existing or planned FM transmission sites.	Chapter 14
3	Department of Agriculture, Food and the Marine	If the proposed development will involve the felling or removal of any trees, the developer must obtain a Felling License.	Chapter 4
4	Department of Defence	Receipt of scoping document confirmed	Chapter 14
5	Department of Culture, Heritage and the Gaeltacht	In order to assess impacts on biodiversity, fauna, flora and habitats an ecological survey should be carried out. In order to assess impacts it may be necessary to obtain hydrological and/or geological data. Hedgerows should be maintained where possible as they form wildlife corridors and provide areas for birds to nest in; hedgerow trees may provide roosting places for bats.	Chapters 6, 7 and 9

No.	Consultee	Comment	EIAR Section
		<p>Wetlands are important areas for biodiversity and ground and surface water quality should be protected during construction and operation of the proposed development.</p> <p>Flood plains, if present, should be identified in the EIAR and left undeveloped to allow for the protection of these valuable habitats and provide areas for flood water retention (green infrastructure).</p> <p>It is noted that bat roosts may be present in trees, buildings and bridges.</p> <p>The EIAR should also address the issue of invasive alien plant and animal species such as Japanese Knotweed or piri piri burr, and detail the methods required to ensure they are not accidentally introduced or spread during survey and or construction.</p> <p>Survey methodologies should follow best practice and if necessary be modified to reflect the Irish situation.</p> <p>The impact of the proposed development on the flora/fauna and habitats present should be assessed.</p> <p>Construction Management Plans should contain sufficient detail to avoid any post construction doubt with regard to the implementation of mitigation measures, timings and roles and responsibilities for same.</p>	

No.	Consultee	Comment	EIAR Section
		In order to carry out the Appropriate Assessment screening, and/or prepare a Natura Impact Statement (NIS), information about the relevant European sites including their conservation objectives will need to be collected.	
6	Faílte Ireland	Faílte Ireland’s Guidelines for the Treatment of Tourism in an EIS recommended.	Chapter 5
7	Geological Survey of Ireland	<p>GSI records show that there are no current CGSs located within the vicinity of the proposed development. Therefore they note that with the current plans, there are no envisaged impacts on the integrity of CGSs.</p> <p>GSI recommend using the GSI’s National Aquifer and Recharge maps.</p> <p>Recommend that geohazards be taken into consideration, especially when developing areas where these risks are prevalent, and we encourage the use of GSI data when doing so.</p>	Chapter 8
8	Inland Fisheries Ireland	The proposed site is located within two salmonid bearing catchments	Chapters 6 and 9
9	City of Derry Airport (CoDA)	<p>Requested turbine grid positions on 04/09/2019.</p> <p>Details of various iterations of the turbine layout issued to CoDA on 30/09/2019 and 21/02/2020.</p>	Chapter 14

No.	Consultee	Comment	EIAR Section
		CoDA requested a full Instrument Flight Procedure Safeguarding Assessment to be carried out on 25/03/2020.	
10	Tetra Ireland Communications Limited	No impact from development at the proposed location anticipated.	Chapter 14
11	RTE 2m	No impact on fixed links and there is a low probability that it will cause any interference to DTT services.	Chapter 14
12	Virgin Media Ireland	Virgin Media do not have any Microwave Communications Links that would be effected	Chapter 14
13	Derry and Strabane District Council (DSDC)	<p>DSDC undertook consultations with the appropriate consultees in Northern Ireland and enclosed the responses from the various bodies for consideration in the EIAR:</p> <p><u>Department of Agriculture, Environment and Rural Affairs</u></p> <p>Provided comments on the topics of Drainage and Water, Land, Soil and Air and Natural Heritage and Conservation Areas.</p> <p><u>Historic Environment Division</u></p> <p>Requested that the EIAR include a section dedicated to the assessment of potential impacts on archaeology.</p>	<p>Chapters 6, 8 and 9</p> <p>Chapter 13</p>

No.	Consultee	Comment	EIAR Section
		<p><u>Loughs Agency</u></p> <p>Noted that the application falls outside its jurisdiction and therefore, would not be providing any comment.</p> <p><u>Belfast International Airport</u></p> <p>Stated that with the limited information provided that they were unable to carry out the required consultation and requested that when the relevant information becomes available that they be reconsulted.</p> <p><u>Civil Aviation Authority – Directorate of Airspace</u></p> <p>Stated that there are typically two aspects to consider in relation aviation effects, namely obstacles to aviation and electromagnetic effects including radar and radio impacts.</p> <p>Recommended consultations with statutory consultees, NATS and Ministry of Defence, under the Town and country Planning Act.</p> <p>Referred to safeguarded aerodromes that would have safeguarded areas in excess of 50km which should be considered. Also referred to other aerodromes which do not have safeguarded areas and should be considered.</p> <p>Recommended that the Emergency Service Helicopter Support Units are consulted.</p>	<p>Chapter 9</p> <p>Chapter 14</p> <p>Chapter 14</p>

No.	Consultee	Comment	EIAR Section
		<p><u>City of Derry Airport</u></p> <p>Refer to Item No. 9 above.</p> <p><u>Aquiva Services Ltd.</u></p> <p>No response received.</p>	
14	ENET	<p>250m separation is deemed acceptable.</p> <p>Note one link in the area</p>	Chapter 14
15	Eir	<p>1st Response- There are five transmission links within the proposed area that would be at risk. Request of 100m radius away from this transmission path when placing turbines.</p> <p>2nd Response- There are two transmission links within the proposed area, that would be at risk. Request of 100m radius away from this transmission path when placing turbines.</p>	Chapter 14
16	ESB Telecom	<p>Response 1- ESTB have no microwave links in the vicinity.</p> <p>Response 2- There are two service that may be affected including one microwave link and also a point to multi point link. Report provided with details. Once the individual sites of the turbines have been defined it is requested that details are forwarded.</p>	Chapter 14

No.	Consultee	Comment	EIAR Section
17	Imagine Group	<p>Response 1- 3 microwave TX links with 10km of the site.</p> <p>Response 2- Confirm that the proposed location won't have any impact on any existing/planned Imagine microwave links.</p>	Chapter 14
18	Three	<p>Response1- 10 microwave links within 10km of the centre point of the proposed development. Typically seek 100m buffer for all links to ensure that there is no impact upon the transmission network.</p> <p>Response 2- Once final layout is received it is requested that its forward.</p>	Chapter 14
19	Viatel	No impacts on Viatel.	Chapter 14
20	Vodafone Ireland	VF microwaves, on average about 4-5 km's away	Chapter 14

2.5 Other Consultation

2.5.1 Community Engagement

FuturEnergy Ireland has undertaken a comprehensive community engagement programme over the 2019-2022 period, liaising with near neighbours and those in the wider area with regard to the proposed wind farm.

Two Community Liaison Officers (CLOs) were appointed for the project in Spring 2019. Based on the initial layout and dwelling distribution, the CLOs focussed on residents living within 2km of the site as these are closest and most sensitive to any potential effects caused by the proposed development. The 2km zone was identified by taking the initial developable area layout and applying a 2km buffer. Within this area all dwellings – lived in, vacant and with the potential to be occupied – were mapped. As the design progressed, a “buildable” or more accurate developable area was established. This defined 2km area was used as the basis for continuous engagement with near neighbours.

Initial engagement:

Engagement began in Spring 2019, when both CLOs worked together calling to all houses within the 2km zone with the first introductory newsletter. This was before any detailed design work had been initiated. A second project newsletter was distributed in Summer 2019. This contained a map of the site and information on environmental assessments being undertaken.

The project team created a low-call number and project email address to aid communications. These were included in all project newsletters. The project team, specifically Project & CLO Manager, followed up on all issues raised in correspondences and any significant issues raised at the doors and all issues raised in correspondences.

The project team succeeded in meeting with approx. 95% of households within 2km. The remaining householders were sent a letter that contained an invite to contact the team if they wished.

A project website, www.glenardwindfarm.ie, also launched in Spring 2019 and all materials circulated to this point in the local area were uploaded to this site. The project website also included contact details for any queries.

Throughout 2019 the CLOs engaged on a one-to-one basis or in small pods with people on specific issues such as noise, set back distance and shadow flicker.

Next Phase Engagement

Following the introduction of the Government’s Covid restrictions in March 2020 most of the subsequent engagements with the wider community went online, for example, community briefings took place via online webinars. A webinar with a project update occurred November focused on the community benefit fund and a further webinar in December 2020 outlining the project status, turbine layout, the current layout and further details on the Community Benefit Fund and how it is proposed to be structured and operated under the Government guidelines.

Three webinars took place between the autumn & winter of 2021 as the project became more defined and further sessions regarding Community Benefit Fund undertaken. A number of break out groups were formed out of these webinars and the project manager met with some family pods to address specific concerns with the final layout of the project strictly in accordance with the Government’s Covid-19 restrictions and guidelines.

In January 2022, a detailed 32-page brochure (Newsletter 3) with the final 15 turbine layout map was hand-delivered by the CLOs to the vast majority of homes within a 3km zone. This included information about the site and the proposed development, site layout map and information on the Community Benefit Scheme. It also included information on the planning process, the site design process, information on key aspects of the environmental studies, some of the environmental benefits associated with the proposed project and a guide to the what happens next.

At all stages of the consultation process, individual calls and emails received by the project were responded to either in person, by phone or by email as they arose.

Online virtual tour and information platform

Covid-19 restrictions prevented an in-person public consultation event, however an informative online project exhibition was developed with the assistance of Innovision, a virtual platform specialist. This Virtual Tour went live in January 2022 and is accessible from the project website homepage, www.glenardwindfarm.ie.

The Virtual Tour includes an introductory video from Futureenergy Ireland, a turbine layout map, detailed information on archaeology and cultural heritage assessments, ecology field surveys, noise assessment, photomontages, aquatic ecology and all project information issued to date.

Some of the key concerns raised by local residents as part of the community engagement process relate to the size and scale of the proposed turbines, particularly in relation to the existing neighbouring turbines, and the potential cumulative effects as a result of noise, general disturbance and landscape or visual effects.

A Community Report which details the public consultation effort and outcomes is included as Appendix 2-2 of this EIAR.

2.5.2 Pre-Planning Meetings

2.5.2.1 An Bord Pleanála

On the 5th of September 2019, the applicant sought a determination, from the Board, in relation to the Strategic Infrastructure Development (SID) status or otherwise, of a proposed wind farm development at Glenard, Inishowen, County Donegal. This request was made in accordance with Section 37B of the Act (Pl.05E.305388).

A pre-application consultation meeting between the Board and representatives of the applicant and MKO, in relation to the proposed development took place on the 12th of December 2019. A meeting agenda was which guided discussion around the following topics:

- > Introductions
- > Site Location
- > Site Selection and Site History
- > Policy Context
- > Wind Farm Design Process and Emergence of Optimal Layout
- > Scoping and Pre-Application Consultation including Transboundary Consultation
- > Public Consultation
- > Environmental Impact Assessment Report
- > Strategic Infrastructure Development Criteria
- > AOB

At the meeting MKO presented the various background information with regards to the proposed development and development site. Further discussions were also had with regards to the policy

context of the site. Following this meeting the Board outlined that its preliminary view was that the proposed wind farm development would constitute strategic infrastructure and invited the applicant to request a formal closure of the pre-application consultation.

Such a request was made on the 4th of November 2020, on the basis of a 16 no. turbine layout, and the Board issued a notice to the applicant indicating its determination that the proposed development was SID on 9th December 2020 and, accordingly, that an application for permission should be made directly to the Board in accordance with Section 37A of the Act.

However, in December 2020, additional bird survey data was made available to MKO which confirmed the presence of a hen harrier roost site within approximately 300 metres of the nearest proposed turbine location. A roost is a place where hen harrier regularly gather or settle during the winter season (October to March). In order to reduce the potential for significant effects on hen harrier and the roost site, a 750 metre buffer zone was applied to the roost location. Three of the 16 no. proposed turbine locations fell within this buffer zone and, therefore, a revision of the proposed turbine layout was required. Refer to Chapter 7: Ornithology of this EIAR for further details in relation to the hen harrier roost site.

In March 2021, a revised 15 no. turbine layout was confirmed by the applicant. As one turbine had been removed from the previous layout and a number of turbines relocated, it was decided that the best course of action was to seek a new SID determination rather than rely on the original determination.

On the 26th of May 2021, the applicant sought a determination, from the Board, in relation to the Strategic Infrastructure Development (SID) status or otherwise, of the proposed development that is the subject of this EIAR, namely a 15 no. turbine wind farm development at Glenard, Inishowen, County Donegal (ABP-310369-29).

A pre-application consultation meeting between the Board representatives of the applicant and MKO, in relation to the proposed 15-turbine development took place on the 10th of September 2021. At the meeting MKO presented the various background information with regards to the proposed development, development site and the evolution of the development layout. Discussions were also had with regards to the policy context of the site and the scope of the EIAR. As in December 2019, following this meeting the Board outlined that its preliminary view was that the proposed 15-turbine development would constitute strategic infrastructure and invited the applicant to request a formal closure of the pre-application consultation.

This formal closure request was made on the 12th of November 2021, on the basis of a 15 no. turbine layout, and the Board issued a notice to the applicant indicating its determination that the proposed development is SID on the 18th January 2022 and, accordingly, an application for permission should be made directly to the Board in accordance with Section 37A of the Act.

A copy of that letter is included as Appendix 2-3 of this EIAR.

2.5.2.2 Donegal County Council Clinic

In 2015, MKO had submitted a pre-planning enquiry to Donegal County Council with regards to the proposed Glenard Wind Farm development, the pre-planning enquiry was assigned the reference PP4516. With regards to the pre-planning enquiry Donegal County Council, provided their pre-planning feedback by email in lieu of a meeting, the email was dated the 9th of September 2015, a copy of which has been included under Appendix 2-4. It was the consideration of the Planning Authority that the site at that time and under the provisions of the then current County Development Plan 2012-2018 was located within an area which was designated as open to consideration for a wind farm development, it was noted in relation to the proposed development that “*accordingly the principle of the development is acceptable*”. It was also the consideration of Donegal County Council that the “*subject site is one generally considered by the Planning Authority to have potential in principle for*

further wind farm development” it was noted that this was due to the robust nature of the landscape, low density of rural dwellings, proximity to infrastructure and separation from designated sites. The Planning Authority in their correspondence, provided under Appendix 2-4 provide further advice which has been considered in the preparation of this application which has been followed in the design and reporting on the current proposed development.

MKO submitted a pre-planning enquiry to Donegal County Council in October 2019 in respect to the proposed development. Correspondence from the Council dated the 25th of November 2019 advised that *‘having regard to the extent of the lacuna in policy in relation to this matter, proposals that may be brought forward to the Planning Authority would be considered premature pending the completion of the variation process’*. As such the project team was unable to carry out further pre-application consultations with Donegal County Council. A copy of Donegal County Councils response is included under Appendix 2-5.

2.6 Cumulative Impact Assessment

The EIA Directive and associated guidance documents state that as well as considering any indirect, secondary, transboundary, short-, medium-, and long-term, permanent and temporary, positive and negative effects of the 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. 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 and considers the full list of projects in Section 2.3 of this chapter.

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

2.6.1 Methodology for Cumulative Assessment of Projects

The potential cumulative impact of the proposed development and combined with the potential impact of other projects has been carried out with the purpose of identifying what influence the proposed development will have on the surrounding environment when considered collectively with approved and existing projects and projects pending a decision from the planning authority and land-uses in the vicinity of the proposed 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.

2.6.2

Projects Considered in Cumulative Assessment

The projects considered in relation to the potential for cumulative impacts and for which all relevant data was reviewed (e.g. individual EIS/EIAR's, layouts, drawings etc) include those listed previously above in Section 2.3 (i.e. wind farms and renewable energy infrastructure within 20 kilometres of the site, smaller scale projects (i.e. agricultural, residential and other developments within approximately 2 kilometres of turbine locations, and 500m of the grid connection cabling route) and all relevant associated works. Other developments considered within the cumulative assessment include land uses and the categories of works listed below. This EIAR therefore considers the full range of projects that could potentially have a cumulative effect with the current proposed development.

Other Wind Turbines

There are a number of wind farms located within a 20-kilometre radius of the proposed development site, as identified previously above in this Chapter. Any cumulative effects arising are considered in the relevant chapters of this EIAR.

Other Developments/Landuses

In preparing this EIAR the planning register has been reviewed and all relevant general development planning applications/permissions and projects in the vicinity of the proposed development have been noted and considered as well as other existing projects as well as those permitted. As discussed previously the majority of applications in the vicinity relate to the provision of wind farm infrastructure and/or alteration of one-off rural housing and agriculture-related structures, as described previously above. These applications and land uses (which are listed previously above in Section 2.3) have also been taken into 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 ongoing agricultural practices.

Overall the proposed development has been designed to 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 have been developed to ensure that significant cumulative effects do not arise during construction, operational or decommissioning phases of the proposed development.

Additional detail in relation to the potential significant cumulative effects arising and, where appropriate, the specific suite of relevant mitigation measures proposed are set out within each of the relevant chapters of this EIAR.

2.6.2.1.2 Forestry Felling and Replanting

Forestry Operations

The proposed development site is used for commercial forestry. This land-use will continue in conjunction with the operation and decommissioning of the proposed wind farm. The potential for cumulative effects during the construction, operational and decommissioning phases of the proposed wind farm 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 4.3.10 of this 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 Approval³ 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)⁴. 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 greater than 10km from the wind farm site and also outside any potential hydrological pathways of connectivity (i.e. outside the catchment within which the proposed project is located) with the proposed project. 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 (Chapters 5-14) of this EIAR.

³ All proposed forestry developments where the area involved is greater than 0.1 hectare must receive the prior written approval of the Forest Service. The application for approval is known as Pre-Planting Approval – Form 1.

⁴<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 Appendix 2-6 of this EIAR.