4 PLANNING POLICY

4.1 INTRODUCTION

This section sets out the planning policy context relevant to the proposed Development by providing an overview of the international, national and regional legislation and policy of relevance, as well as a detailed review of the planning policy framework within which the application will be assessed. This section also provides a brief overview of the most up-to-date statistics on Irish renewable energy production, climate emissions, and the benefits the proposed Development can bring to helping meet Ireland's legally binding 2020 and 2030 targets.

4.1.1 Statement of Authority

Jennings O'Donovan & Partners Ltd. (JOD) have extensive experience in all aspects of wind farm development, from design and planning stages through to construction. JOD have been active as engineering consultants in the wind energy market in Ireland since 1998 and have completed numerous wind farm projects, varying from single wind turbine installations to large-scale, multi-turbine developments with a total of over 2,000 MW generation capacity.

This section has been prepared by Mr. Ryan Mitchell and Mr. Justin Lohan of JOD. Mr. Mitchell has a bachelor's degree in Animal conservation and Biodiversity, has a strong proven background in ecology with 5 years' of experience working in the sector. He is experienced in report writing, EIA Report (EIAR) chapter writing and project management working on EIARs for wind farm developments in Ireland.

Mr. Lohan has a Bachelors' degrees in Environmental Science and Technology. He also has almost 20 years' experience working in the construction and environmental sectors. He is experienced in report writing, EIAR chapter writing and project management working on EIARs for wind farm developments in Ireland.

The chapter has been reviewed by Mr. David Kiely of JOD. Mr. Kiely has 35 years' experience in the civil engineering and environmental sector. He has obtained a Bachelor's Degree in Civil Engineering and a Master's in Environmental Protection, has overseen the construction of over 40 wind farms and has carried out numerous soils and geology assessments for EIARs. He has been responsible in the overall preparation of in excess of 20 EIARs.

4.2 INTERNATIONAL POLICY

This sub-section contains information on international policy considered to be relevant to the proposed EIA Development.

4.2.1 The 1992 United Nations Framework Convention on Climate Change (UNFCCC)

In 1992, fifty countries ratified an international treaty, the United Nations Framework Convention on Climate Change (UNFCCC), as a framework for international efforts to combat the challenge posed by climate change. The UNFCCC seeks to limit average global temperature increases and the resulting climate change. In addition, the UNFCCC seeks to cope with impacts that are already inevitable. It recognises that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The framework sets 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. The convention enjoys near universal membership, with 197 countries listed as being Parties to the Convention[1].

4.2.2 The Kyoto Protocol Targets

The Kyoto Protocol is an international treaty which extends the 1992 United Nations Framework Convention. The Kyoto Protocol came into effect in 2005, as a result of which, emissions 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.

4.2.3 The 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.

[1] https://climate-adapt.eea.europa.eu/en/metadata/organisations/united-nations-framework-convention-on-climate-change-unfccc [Accessed: 09/03/2023]

- 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.

4.2.4 The Paris Agreement (COP21)

The Paris Agreement seeks to accelerate and intensify the actions and investment needed for a sustainable low carbon future. Its central aim is to strengthen the global response to the threat of climate change by limiting the global temperature rise this century to below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. The agreement also aims to strengthen the ability of countries to deal with the impacts of climate change.

Ireland signed the United Nations COP21 Paris Agreement[2] in December 2015. On the 5th October 2016, the threshold for entry into the agreement was adopted and the agreement came into force on the 4th November 2016. Ireland is legally bound by Article 7 of the agreement to prepare and submit periodic updates on its national adaptation and mitigation plans in the global effort to keep global warming below 1.5 °C.

At the most recent UN Climate Change conference COP27 in Sharm El Sheikh, Egypt 6th-20 November 2022, one of the key goals was set out to secure global net zero mid-century and keep a 1.5 degrees global temperature increase within reach. To this end, the international community of nations are being asked to come forward with

[2] United Nations Framework Convention on Climate Change (2015) *Adoption of the Paris Agreement*. Available at https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf [Accessed: 09/03/2023]

ambitious 2030 emissions reduction targets that align with reaching net zero emissions by the middle of the century. To meet ambitious 2030 emission targets the following should be implemented,

- accelerate the phase-out of coal,
- curtail deforestation,
- increase the switch to electric vehicles, and
- encourage investment in renewables.

4.2.5 Bern Convention

The Convention aims to ensure conservation of wild flora and fauna species and their habitats. Special attention is given to endangered and vulnerable species, including endangered and vulnerable migratory species specified in appendices.

The Parties undertake to take all appropriate measures to ensure the conservation of the habitats of the wild flora and fauna species. Such measures should be included in the Parties' planning and development policies and pollution control, with particular attention to the conservation of wild flora and fauna. The Parties undertake to promote education and disseminate general information concerning the need to conserve species of wild flora and fauna and their habitats.

The Convention establishes a Standing Committee on which the Parties are represented by their delegates. The Committee's principal task is to monitor the provisions of this Convention in the light of development of the wild flora and the assessment of its needs. For this purpose, the Standing Committee is especially competent to make recommendations to the Parties and amendments to the appendices where these protected species are specified.

4.3 EUROPEAN UNION POLICY

The European Union (EU) Directive on the *Promotion of the Use of Energy from Renewable Sources* (Directive 2009/28/EC) was adopted on 23rd April 2009 and updated on the 11th December 2018 (Directive (EU) 2018/957). This Directive establishes a binding target of a minimum 40% reduction in greenhouse gas emissions based on 1990 levels, 27% of overall EU energy consumption to come from renewable sources by 2030. As well as a binding 10% minimum target for energy from renewable resources in the share of transportation fuels and 20%

reduction in primary energy use compared with projected levels by improving energy efficiency.

Directive 2018/957 imposes a legal obligation on each Member State to:

- Ensure that its 2030 target is met.
- Introduce "*appropriate measures*" and outline them in a National Renewable Energy Plan.

The "appropriate measures" include seeing that grid-related measures and administrative and planning procedures are sufficient to achieve the 2030 target. The National Renewable Energy Plan for Ireland was published in June 2020. Ireland has established an ambitious and challenging target of increasing reliance on renewables from 30% to 70% by 2030.

Failure by Ireland to meet its legally binding EU targets on the use of energy from renewable sources could result in EU sanctions. Ireland's mandatory target under Directive 2018/2001 is for renewable resources to account for 32% of total energy consumption by 2030. This will be met by 40% from renewable electricity, 12% from renewable heat and 14% from the renewable transport sector.

The 2030 Climate and Energy Framework was adopted by EU leaders in October 2014 and marks a further development of EU renewable energy policy. The framework defines further EU wide targets and builds on the 2020 climate and energy package. The Framework sets three key targets for the year 2030 as follows:

- A binding commitment at EU level of at least 40% domestic Green House Gas reduction by 2030 compared to 1990;
- An EU wide, binding target of at least 42% renewable energy by 2030; and
- An indicative EU level target of at least 32.5% energy efficiency by 2030.

On the 30th November 2016, the EU Commission published a proposal for a revised Renewable Energy Directive, setting a target of at least 32% renewables in the final energy consumption in the EU by 2030.

The Renewable Energy Directive (Recast) 2018/2001 (REDII) includes a binding renewable energy target for the EU of 32% by 2030, however there have been at least two proposals to amend REDII to increase this target to 40% (14 July 2021,

and 45% (18 May 2022). The rapid increase in ambition responds to increased awareness of the scale of the challenge if the worst effects of climate change are to be abated, and the radical change in the market conditions for fossil fuels used in power, heating and transport arising from Russia's war on Ukraine.

In line with the 2018 Governance Regulation, REDII requires each Member State to make incremental progress towards the REDII target by 2030. REDII requires that Member States adopt administrative procedures to streamline permitting for renewable energy projects. Further measures for streamlining the permitting of renewables have been proposed by the European Commission through the REPowerEU Plan.

The REPowerEU Plan, adopted by the European Commission in May 2022, included a Commission Recommendation on speeding up permit-granting procedures for renewable energy projects and facilitating Power Purchase Agreements.

The Commission's Recommendations are articulated further in a Proposal for a Directive to amend REDII (COM/2022/222 final), providing for the designation by Member States of 'go to' areas deemed suitable for renewable energy projects by way of a plan or programme that is subject to prior SEA of the implications of the designation on the environment. Any project which complies with the designation and any associated rules or measures identified in the plan or programme should benefit from a presumption of not having significant effects on the environment. The proposal for a directive suggests that any such project should not require a specific EIA procedure, save for example where the project could have transboundary effects.

On 19 December 2022 the European Council of Energy Ministers adopted a further Regulation (Council Regulation 2022/2577) laying down a framework to accelerate the deployment of renewable energy which was published in the Official Journal of the EU on 29 December 2022 and came into force on 30 December 2022. The Regulation establishes temporary rules of an emergency nature to accelerate the permit-granting process applicable to the production of energy from renewable energy sources, with a particular focus on specific renewable energy technologies or types of projects which are capable of achieving a short-term acceleration of the pace of deployment of renewables in the Union. This Regulation applies to all permit-granting processes that have a starting date within the period of its application (i.e.

30 December 2022 – 29 June 2024) and is without prejudice to national provisions establishing shorter deadlines than those laid down in Articles 4, 5 and 6.

On 22 June 2022, the European Commission proposed a new Nature Restoration Law to restore ecosystems for people, the climate and the planet. It calls for binding targets to restore degraded ecosystems, in particular those with the most potential to capture and store carbon and to prevent and reduce the impact of natural disasters. The purpose of the proposal is to:

- enable the long-term and sustained recovery of biodiverse and resilient nature;
- contribute to achieving the EU's climate mitigation and climate adaptation objectives; and
- meet international commitments.

4.3.1 Progress towards reaching targets 2020-2030 EU

In 2019, the 27 EU Member States had greenhouse gas (GHG) emissions that were 24% below 1990 levels, which was consistent with achieving the 2020 target. The European Environmental Agency report No 10/2022 '*Trends and projections in Europe 2022*' was published 26th October 2022[3]. This report emphasises the importance of continued action on climate change and the exceptional circumstances which progressed the EU to meeting the 2020 targets:

"Although the achievements of 2020 build upon many years of work towards climate and energy sustainability, the progress made in 2020 is also rooted in exceptional circumstances. The global COVID-19 pandemic has disrupted many key facets of European society and economy and has forced adaptation and change through crisis. At the time of this report's publication, Europe is slowly reopening from the lockdowns imposed in response to the pandemic, and stability is again becoming palpable. However, with the return of normalcy is the risk of returning to old habits, old consumption patterns and unsustainable practices. The way that European countries recover from the COVID-19 crisis will largely determine how much Europe's climate and energy progress can be accelerated in the coming years. Although the EU reached its greenhouse gas (GHG) emissions target for 2020 well before the pandemic and its impacts, and it was well on its way towards achieving the 2020 target for renewable energy shares,

[3] https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2021 [Accessed: 09/03/2023]

achieving climate neutrality by mid-century will demand change at a much more rapid pace over the next three decades".

The EEA 2021 report provides a comprehensive overview of the Historic trends, most recent progress and projections of the EU and meeting the 2030 targets. The report states that, according to the approximated data, GHG emissions in 2020 decreased compared to the previous year in the vast majority of member states excluding Bulgaria, Cyprus, Finland, Germany, Ireland and Malta. Despite the progress made by the EU in 2020, the following countries (Bulgaria, Cyprus, Finland, Germany, Ireland and Malta) will most likely need to make use of flexibilities in the so-called *'Effort Sharing'* legislation sectors to comply with their legal objectives.

The report states that the vast majority of Member States are "well on track in terms of renewable energy deployment". However, four Member States, namely: Ireland, Luxembourg, the Netherlands and the United Kingdom were below their national binding targets. The shortfall of renewable energy deployment in the United Kingdom is however very small (approximately 0.2%) so it is expected that Ireland will be one of only three Member States projected to not meet their national binding 2020 targets.

It is estimated that 1MW of wind capacity can provide enough electricity to supply approximately 650 homes. EirGrid in their Generation Capacity Statement 2017 – 2026, published in April 2017, stated that the amount of wind energy installed on the island of Ireland at the end of November 2016 had reached 2,800 Megawatts (MW) and over the course of 2016, 22% of all electricity consumed in Ireland was provided by wind. EirGrid estimated that between 3.9 and 4.3 Gigawatts (GW) of wind energy may be required to meet the 2020 Renewable Energy Supply Electricity target of 40%. This means that approximately 340 MW of extra wind capacity was required to be installed each year between 2016 and 2020 to achieve targets.

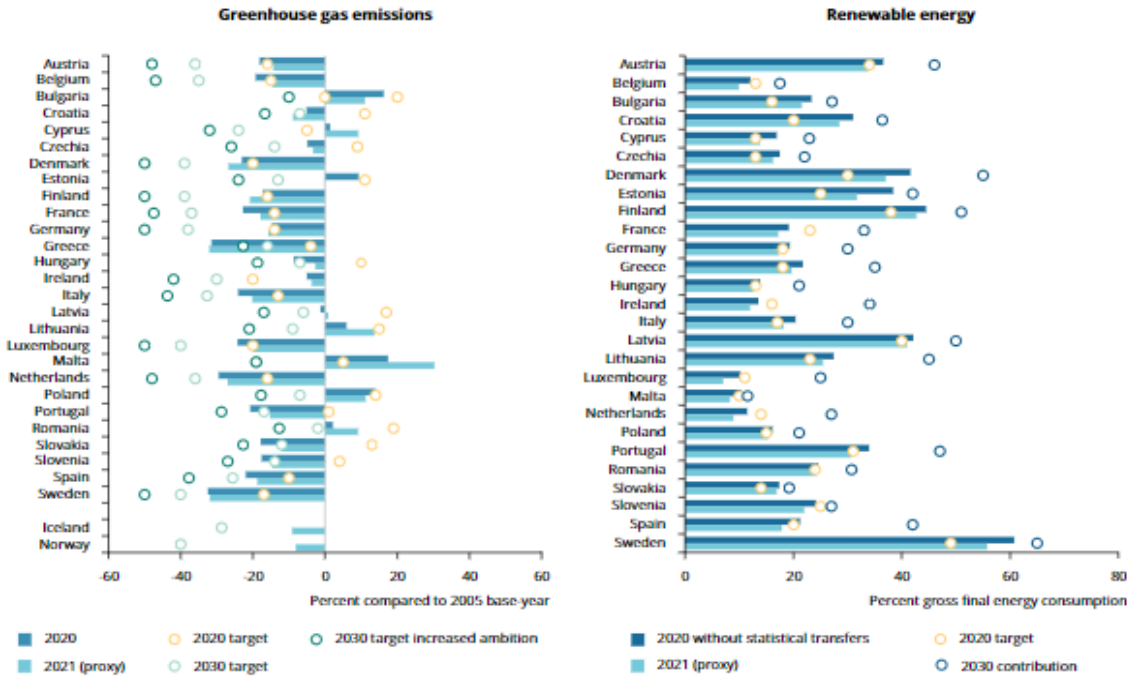
A report published by the Sustainable Energy Authority of Ireland in December 2022 entitled '*Energy in Ireland 2022*[4]*'* presents the latest national data and trends on energy efficiency and renewable energy in Ireland. Ireland's renewable energy share in electricity (RES-E) was 36.4% in 2021 under REDII which was a slight decrease from 39.1% in 2020. This was primarily due to a low wind year for renewable generation in 2021. However, wind still accounted for 84% of renewable electricity

[4] https://www.seai.ie/publications/Energy-in-Ireland-2022.pdf [Accessed: 09/03/2023]

generated in 2021. Ireland had 4339 MW of installed wind capacity in 2021, the capacity increased by an average of 12% (about 300 MW) each year from 2009 to 2019. However, this slowed to 180 MW of added capacity in 2020 and 32 MW in 2021, due to the profiling of renewable energy price support schemes. The last wind farm projects supported under the REFIT 2 scheme were scheduled for completion in 2019, and most of the 479 MW of wind energy projects awarded support under the first RESS auction are being constructed in 2022. The Report states "*So far in 2022, we have seen 78 MW of added wind capacity up to September 2022*".

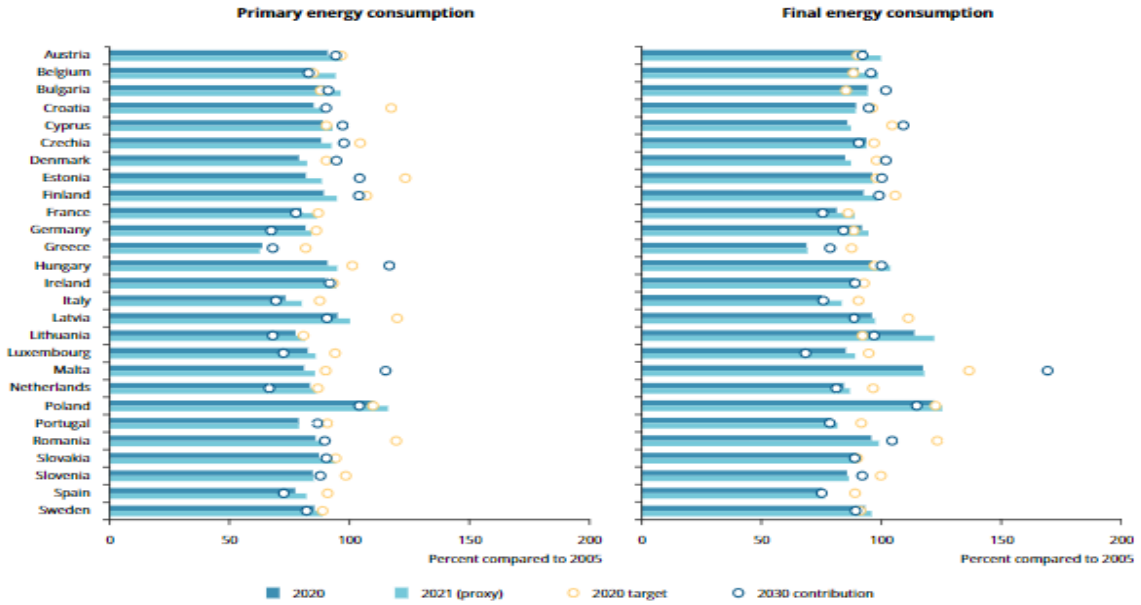
The EirGrid Ireland Capacity Outlook 2022-2031[5] states *"A key driver for electricity demand in Ireland for the next number of years is the connection of large data centres*". There is approximately 1,700 Megavolt Amperes (MVA) of demand capacity that is contracted to data centres and other new large energy users at the transmission level, and a further 600 MVA contracted at the distribution level. At present, there are enquires for more than 1,000MVA of additional data centres.

Figure 3.1 National achievement of 2020 targests and progress towards 2030 targets and contributions



[5] https://www.eirgridgroup.com/site-files/library/EirGrid/EirGrid_SONI_Ireland_Capacity_Outlook_2022-2031.pdf [Accessed: 09/03/2023]

Figure 3.2 National achievement of 2020 targests and progress towards 2030 targets and contributions



Note: Black dots indicate the 2020 target, while white dots with a black outline indicate the currently available 2030 targets (under Effort Sharing legislation) or contribution (for renewable energy share and energy efficiency). For Effort Sharing legislation emissions and energy efficiency, the target or contribution is considered to have been met when the coloured bar is at or below the target or contribution. For renewable energy share, the target is met when the orange bar exceeds the indicated target or contribution. For Effort Sharing emissions, the current 2030 limitation targets of the Effort Sharing Regulation (ESR) and the revised targets for the increased EU ambition for 2030 as proposed in the 'Fit for 55' package are shown. The ESR targets for 2030 have been published using global warming potentials (GWPs) from the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC). To allow a comparison with reported greenhouse gas projections and historical inventory numbers, an estimate for annual emission allocations for 2030 in Fourth Assessment Report (AR4) of the IPCC has been conducted. As a reference, the ESD base year 2005 has been used for 2020 values and ESR base year 2005 has been used for 2030 and 2021 values, also estimated using GWPs from AR4.

Sources: EC (2021j); EEA (EEA, 2019b, 2022b, forthcoming a, forthcoming b, forthcoming c); ESA (2021); Eurostat (2022c, 2022d).

Figure 3.1 & 3.2: Current progress towards achieving the 2020 and 2030 targets in the EU-27[6]

The graphs in figure 3.1 & 3.2, shows EU wide targets between all member states. This is the current data available for the Effort Sharing Emissions, Final Energy consumption, Primary Energy consumption and for the final share of renewable energies in the final energy consumption according to the Environmental Protection Agency and the targets have been set for 2030.

Effort Sharing Emissions

The preliminary 2020 data indicates that 21 Member states of the EU had 2020 effort sharing legislation emissions which were below their 2020 national emission targets. The other 6 member states (Bulgaria, Cyprus, Finland, Germany, Ireland and Malta) failed to reduce or limit their emissions below their 2020 targets.

National energy consumption levels

[6] https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2022 [Accessed: 09/03/2023]

The preliminary data indicates the 15 member states which were in line or below their 2020 indicative targets for primary energy consumption. The following 12 member states (Austria, Belgium, Bulgaria, Cyprus, France, Germany, Ireland, Luxembourg, Malta, the Netherlands, Poland and Sweden) based on the current preliminary data failed to meet their 2020 primary energy consumption targets.

National renewable energy shares

The preliminary data indicates that 14 EU member states achieved national Renewable Energy Shares (RES) in 2019 that surpassed their national targets set by the Renewable Energy Directive (RED) for 2020 these include (Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, Greece, Italy, Latvia, Lithuania, Romania, Slovakia and Sweden) as well as Iceland and Norway. All EU member states' (excluding Belgium, France, Poland, Romania and Slovenia) RES was above the national RED 2020 target.

4.1.1 Project 2040

Ireland has developed a strategic outlook for the future development of the country under 'Project Ireland 2040.' Project 2040 comprises two plans, The National Planning Framework (NPF) and the ten-year National Development Plan (NDP) which will guide strategic development and infrastructure investment at the national level. The NDP 2018-2027 sets out investment priorities of €21.8 billion for climate action for the 10-year period. €7.6 billion is to come from the Exchequer. The remaining investment is to be made by Ireland's semi-state companies and by the private sector. In addition, some €8.6 billion in funding has been made available for sustainable mobility projects, mostly in public transport. This substantial funding increase will facilitate upscaling of investments and implementation of actions needed to move the country towards its 2030 climate targets.

Section 1.5 of the NPF sets out that "*sustainability is at the heart of long-term planning and the National Planning Framework seeks to ensure that the decisions we make today, meet our own needs without compromising the ability of future generations to meet their needs."*

The NPF, with the NDP, will also set the context for each of Ireland's three regional assemblies to develop their Regional Spatial and Economic Strategies taking account of and co-ordinating Local Authority County and City Development Plans in a manner that will ensure national, regional and local plans align. The National Planning

Framework is based on a set of values that will ensure Ireland's "long term economic, environmental and social progress for all parts of the country".

The NPF sets a number of shared goals for Ireland which the Project will contribute to achieving, including:

- Strengthened rural economies and communities
- A strong economy, supported by enterprise, innovation and skills
- Transition to a low carbon and climate resilient society

NPF Chapter 9 states that "*The Government is committed to a long-term climate policy based on the adoption of a series of national plans over the period to 2050, informed by UN and EU policy. This is being progressed through the National Mitigation Plan and the National Climate Change Adaptation Framework, both of which will be updated and reviewed periodically.*

In addition to legally binding targets agreed at EU level, it is a national objective for Ireland to transition to be a competitive, low carbon, climate resilient and environmentally sustainable economy by 2050, guided by a long-term vision based on:

- *an aggregate reduction in carbon dioxide (CO_2) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors; and*
- *in parallel, an approach to carbon neutrality in the agriculture and land-use sector, including forestry, which does not compromise capacity for sustainable food production."*

The NPF states, in relation to rural areas and renewable energy, that:

Transition to a Low Carbon and Climate Resilient Society

> *"The National Climate Policy Position establishes the national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. This objective will shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both 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.

UN Sustainable Development Goals

There is significant alignment between the UN SDGs and the National Planning Framework's National Strategic Outcomes (NSOs) in areas such as climate action, clean energy, sustainable cities and communities, economic growth, reduced inequalities and innovation and infrastructure, as well as education and health."

National Policy Objective 54

"Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions.

In the energy sector, transition to a low carbon economy from renewable sources of energy is an integral part of Ireland's climate change strategy and renewable energies are a means of reducing our reliance on fossil fuels. The forthcoming Renewable Electricity Policy and Development Framework will aim to identify strategic areas for the sustainable development of renewable electricity projects of scale, in a sustainable manner, compatible with environmental and cultural heritage, landscape and amenity considerations. The development of the Wind Energy Guidelines and the Renewable Electricity Development Plan will also facilitate informed decision making in relation to onshore renewable energy infrastructure.

National Policy Objective 55

"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."

4.3.2 Energy Ireland 2022 Report

The Energy in Ireland 2022 Report[7], highlights the most important legislation which has influenced the growth of renewable energy in Ireland over the past decade. The REDII[8] set out two mandatory 2023 targets for renewable energy in Ireland.

https://www.seai.ie/publications/Energy-in-Ireland-2022.pdf [Accessed: 09/03/2023]
[8] https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en [Accessed: 09/03/2023]

The first relates to renewable energy share (RES), which is known as the RES target. The overall RES target to Ireland was for at least 16% of gross final energy consumption (GFC) to come from renewable sources in 2020. Ireland's actual overall renewable energy share in 2020 was 13.5%, meaning Ireland failed to meet this target. The shortfall to the required target was equivalent to 3.3 TWh of renewable energy.

The second mandatory target set by RED relates to the renewable energy target used for transport. Also referred to as the RES-T target. The mandatory target for Ireland was for at least 10% of energy consumed in road and rail transport to come from renewable sources. Ireland did meet the required target for 2020. Ireland had two further national renewable targets for 2020 in the electricity and heat sectors, these targets were set to help Ireland meet the overall RES targets. REDII sets a new RES-T target of 14% by 2030.

4.3.3 Biodiversity strategy for 2030

The EU's Biodiversity Strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030 and contains specific actions and commitments.

The EU has legal frameworks, strategies, and action plans to protect nature and restore habitats and species. But protection has been incomplete, restoration has been small-scale, and the implementation and enforcement of legislation has been insufficient.

Nature protection: key commitments by 2030

1. Legally protect a minimum of 30% of the EU's land area and 30% of the EU's Sea area and integrate ecological corridors, as part of a true Trans-European Nature Network.

2. Strictly protect at least a third of the EU's protected areas, including all remaining EU primary and old-growth forests.

3. Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately.

To put biodiversity on the path to recovery by 2030, we need to step up the protection and restoration of nature. This should be done by improving and widening our network of protected areas and by developing an ambitious EU Nature Restoration Plan.

Biodiversity loss and ecosystem collapse are one of the biggest threats facing humanity in the next decade. They also threaten the foundations of our economy, and the costs of inaction are high and are anticipated to increase. The world lost an estimated €3.5-18.5 trillion per year in ecosystem services from 1997 to 2011 owing to land-cover change, and an estimated €5.5-10.5 trillion per year from land degradation. Specifically, biodiversity loss results in reduced crop yields and fish catches, increased economic losses from flooding and other disasters, and the loss of potential new sources of medicine.

In all its work, the EU will strengthen the links between biodiversity protection and human rights, gender, health, education, conflict sensitivity, the rights-based approach, land tenure and the role of indigenous peoples and local communities.

4.4 NATIONAL POLICY

This sub-section contains information on national policy considered to be relevant to the Development.

4.4.1 National Strategy for Intensifying Wind Energy Development 2000

The Strategy for Intensifying Wind Energy Development was published in 2000 by the Renewable Energy Strategy Group as part of the Department of Communications, Energy and Natural Resources (now called Department of Communications, Climate Action and Environment). The main aim of the group was to develop a strategy for the increased contribution of onshore wind energy to electricity generation. During the initial six-month period of the preparation of the strategy, the group examined many aspects of, and constraints to, the further development of wind energy.

The principal conclusion of the Renewable Energy Strategy Group was that three key elements: Electricity Market, Electricity Network and Spatial Planning, need to be integrated into a plan-led approach to wind energy deployment. The recommended strategy, arising from this approach, has been designed to meet the targets set for deployment of renewable energy at least cost.

The recommended plan-led approach as described in the strategy sees spatial planning considerations as crucial in determining suitable areas where wind farms may be accommodated. It states that these decisions should be informed by the availability of the resource (wind), the strength of the electricity networks, and landscape and other planning considerations.

4.4.2 White Paper on Energy Policy in Ireland 2015 – 2030

A Government White Paper entitled '*Ireland's Transition to a Low Carbon Energy Future 2015-2030'* was published in December 2015 by the Department of Communications, Energy and Natural Resources[9]. This Paper provides a complete energy update and a framework to guide policy up to 2030. The Paper builds upon the White Paper published in 2007 and takes into account the changes that have taken place in the energy sector since 2007. The White Paper states the advances in Ireland's energy efficiency and renewable energy and generation use between 2007 and 2015. Renewable electricity sources (including wind) accounted for 27% of Ireland's electricity consumption in 2015, which was just over halfway to Ireland's 2020 target of 40% (Energy in Ireland: 2016 Report, SEAI, November 2016).

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 generating electricity from renewable sources, of which there is plentiful indigenous supplies, and increasing the use of electricity and bio-energy to heat homes and fuel. 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 ^{o} 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^{o} C by the 2050s and by in excess of 2 ^{o} C by the end of the century due to climate change.

[9] https://www.dccae.gov.ie/documents/Energy%20White%20Paper%20-%20Dec%202015.pdf [Accessed: 09/03/2023]

Future precipitation changes are less certain to predict 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 heat-waves, 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*."

The report discusses the impacts of climate change in terms of water resource management, agriculture and biodiversity, as described below.

4.4.3 Ireland's Energy Policy Framework 2007 - 2020

A Government White Paper entitled '*Delivering a Sustainable Energy Future for Ireland: The Energy Policy Framework 2007 – 2020*' was published by the Department for Communications, Marine and Natural Resources in 2007. In 2014, 85% of Irish energy requirements were imported. This reliance on imported energy combined with Ireland's peripheral location, leaves the state vulnerable to supply disruption and imported price volatility. The primary objectives of the Government's energy policy as set out in the Paper are security of supply, environmental sustainability and economic competitiveness. The Energy Policy Framework 2007 – 2020 sets out clear actions, targets and timeframes for meeting these interlinked objectives.

Ireland's energy policy priorities as set out in this White Paper were framed in the context of the European Union. Directive 2009/28/EC on the Promotion of the Use of Energy from Renewable Sources, which was repealed by Directive (EU) 2018/2001, set a target for Ireland for 16% of energy consumption to come from renewable sources by 2020. This target will be made up of contributions from renewable energy in electricity (RES-E), renewable energy in transport (RES-T) and renewable energy for heating and cooling (RES-H):

- RES-E: Renewables contribution to gross electricity consumption 40% by 2020;

- RES-T: Renewables (biofuels & the renewable portion of electricity) contribution to transport energy 10% by 2020; and
- RES-H: Renewable contribution to heat (Thermal requirement - heating & cooling) 12% by 2020.

The 2007 Government White Paper sets a more ambitious target of 33% for energy consumption from renewable sources by 2020. 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', Pőyry, 2014).

The Energy White Paper 2007 states that renewable energy will be a critical and growing component of Irish energy supply to 2020 and beyond. The Government's strategic goals for sustainable energy include addressing climate change by reducing energy-related greenhouse gas emissions and accelerating the growth of renewable energy sources. Renewable energy and enhanced efficiency in power generation are integral to the Government's strategy to deliver Ireland's climate change targets under the Kyoto Protocol. The Paper states:

> *"Renewable energy is an integral part of our climate change strategy and sustainability objectives. The additional diversity which renewables bring to Ireland's energy demand will also make a direct contribution to our goal of ensuring secure and reliable energy supplies."*

As of March 2022, there are just under 400 wind farms on-line and operational, in 32 counties on the island of Ireland (just over 300 wind farms in the Republic of Ireland). The current grid connected and operational installed wind capacity on the island of Ireland is 5,585MW. It is estimated that 1MW of wind capacity can provide enough electricity to supply approximately 650 homes. Based on this figure, an installed capacity of 4,309MW can provide enough electricity to power over 3.6 million homes. (Source: IWEA website, figures correct as of 21st March 2022).

4.4.4 National Policy Position

In Ireland's National Energy and Climate Plan 2021-2030 published in June, 2020[10] the National policy has been outlined.

"In 2019, the Irish government agreed to support the adoption of a net zero greenhouse gas emissions target by 2050 at EU level, and to pursue a trajectory of emissions reduction nationally which is in line with reaching net zero in Ireland by 2050, and to evaluate in detail the changes which would be necessary in Ireland to achieve this target at national level. The Climate Action Plan 2019 puts in place a decarbonisation pathway to 2030 which would be consistent with the adoption of a net zero target in Ireland by 2050. Action 1 under the Plan has also committed to evaluating in detail the changes required to adopt a more ambitious commitment of net-zero greenhouse gas emissions by 2050, as part of finalising Ireland's long-term climate strategy as per the advice of the Intergovernmental Panel on Climate Change and the recommendation of the Joint Oireachtas Committee on Climate Action."

"Ireland's Long-term Strategy identifies additional measures and pathways beyond 2030, towards decarbonisation to 2050 underpinned by analysis of transition options across all key sectors of the economy, including energy, buildings, transport, enterprise, waste, agriculture and land-use. The Long-Term Strategy will inform future policy making, business investment decisions and household, community and citizen action. It builds on the decarbonization pathway to 2030 detailed in the Climate Action Plan 2019 and reflected in this National Energy and Climate Plan. Ireland's preparation of the Long-term Strategy is in fulfilment of our EU obligation to prepare and submit to the European Commission a long-term low greenhouse gas emission development strategy with a perspective of at least 30 years."

4.4.5 National Energy & Climate Plan 2021-2030

In accordance with the Governance of the Energy Union and Climate Action Regulation, Ireland's first National Energy & Climate Plan (NECP)[11] 2021-2030 was published in June 2020.

[10] https://www.gov.ie/en/publication/0015c-irelands-national-energy-climate-plan-2021-2030/ [Accessed: 09/03/2023]
[11] https://energy.ec.europa.eu/system/files/2020-08/ie_final_necp_main_en_0.pdf [Accessed: 09/03/2023]

The first draft of the NECP took into account energy and climate policies to that date as well as the levels of economic and demographic growth predicted under Project 2040 and the climate and energy measures set out under the National Development Plan 2018-2027.

The NECP incorporates all planned policies and measures identified up to the end of 2019 which aim to deliver a 30% reduction in non-ETS greenhouse gas emissions (from 2005 levels) by 2030.

Ireland is committed to achieving a 7% annual average reduction in greenhouse gas emissions between 2021 and 2030. However, the NECP reflects the current EU effort sharing approach and not this higher level of commitment. Therefore, the NECP will be revised to take account of these commitments required for the increase in the overall EU contribution agreed as part of the Paris Agreement.

4.4.6 National Energy Security Framework 2022

The Government National Energy Framework[12] was published in April 2022 and was recently invoked due to international political affairs. This acknowledges the vulnerability to Ireland's energy security and the need for a strategy to ensure longterm security of affordable energy supply nationally.

Oil and gas represent around 80% of Ireland's primary energy requirement i.e.,the energy needed to fuel transport, heat our homes and businesses, power industry and generate the electricity. One key method of ensuring energy security is to have significant levels of domestically produced energy, energy storage and diversified sources of energy imports. Currently Ireland imports over 70% of the energy required to meet the national demand. The Framework states:

Structure of Ireland's Response

- **Theme 1: Managing the impact on consumers and businesses.**
  Managing the impact on consumers and businesses with a specific focus on financially vulnerable residential consumers in the short-term

- **Theme 2: Ensuring security of energy supply in the near-term**

[12] National Energy Security Framework 2022 https://www.gov.ie/pdf/?file=https://assets.gov.ie/221399/86cb99f5-58e3-4821-bc4c-e1bb1fa706fb.pdf#page=null [Accessed: 09/03/2023]

Ensuring secure supplies of oil, gas and coal with a focus on the period up to, and including the coming winter

- **Theme 3: Reducing our dependency on imported fossil fuels in the context of the phasing out of Russian energy imports across the EU.**
  Reducing demand for fossil fuels by sector (with a focus over the short and medium-term):
  - Heat
  - Transport
  - Electricity

  Replacing fossil fuels with renewables (with a focus over the medium and long-term)

  Diversifying sources of remaining fossil fuel supplies (with a focus over the medium and long-term)

4.4.7 National Planning Framework

In 2018, the Department of Housing Planning and Local Government, on behalf of the Government, published the finalised National Planning Framework (NPF) under Project Ireland 2040, the overarching policy and planning framework for social, economic and cultural development in Ireland. The NPF is a national document that will guide at a high-level strategic planning and development for the country over the next 20 years, so that, as the population grows, that growth is sustainable (in economic, social and environmental terms).

Finalisation of the NPF alongside the ten-year National Development Plan intends put together one plan to guide strategic development and infrastructure investment at national level. The NPF, together with the National Development Plan, will also set the context for each of Ireland's three regional assemblies to develop their Regional Spatial and Economic Strategies taking account of and co-ordinating local authority County and City Development Plans in a manner that will ensure national, regional and local plans align.

Section 9 of the NPF —Environmental and Sustainability Goals — sets out the set of actions that are required to achieve a low-carbon, climate-resilient and environmentally sustainable economy and society. These actions include, under the heading of 'Renewable Energy':

- New Renewable Electricity Support Scheme to support up to 4500 MW of additional renewable electricity by 2030
- Energy research funding to accelerate diversification away from fossil fuels to green energy, including wind, wave, solar, biomass, biofuels, biogas and hydrogen

Ireland's energy policy priorities are framed in the context of the European Union. Directive (EU) 2018/645 (recast) on the Promotion of the Use of Energy from Renewable Sources (REDII) sets a target for Ireland for 16% of energy consumption to come from renewable sources by 2020. This target will be made up of contributions from renewable energy in electricity (RES-E), renewable energy in transport (RES-T) and renewable energy for heating and cooling (RES-H):

- RES-E: Renewables contribution to gross electricity consumption 40% by 2020;
- RES-T: Renewables (biofuels & the renewable portion of electricity) contribution to transport energy 10% by 2020; and
- RES-H: Renewable contribution to heat (Thermal requirement - heating & cooling) 12% by 2020.

4.4.8 Water Resource Management

The hydrological impacts of projected climate change encompass significant reductions in soil moisture storage in the nine representative catchments across Ireland. Soil moisture deficits will commence earlier and extend later in the year as the century proceeds. This will result in a tendency for groundwater recharge to be lower for longer, sustained periods, increasing the risk of drought when a dry summer follows a drier than average winter. The STRIVE report states that such impacts would be felt greatest in catchments more dependent on groundwater, such as the Suir, Blackwater and Barrow. Significant changes in stream flow are likely to occur, with implications for flood management in winter and water resource availability in summer:

"*In the vital water supply rivers of the east, for example, stream flow reductions in excess of 70 % can be expected for some autumn months by the end of the century*."

4.4.9 Agriculture

The STRIVE report states that the principal challenges to agriculture will come from wetter Winter and drier Summer soils, though increased temperatures will also play an important role. Different challenges will be posed in different regions, depending on crop type and dairying output. The report stresses however that Irish agriculture can, if positioned appropriately, adapt successfully to the challenges of climate change.

4.4.10 Biodiversity and Natural Ecosystems

Changes in species behaviour and viability and in ecosystem distribution across Ireland will occur in conjunction with the projected climate changes. Changes in the timing of life-cycle events such as leafing, bud burst and leaf fall can be expected as preliminary responses and will be instrumental in altering biodiversity. The report states that particularly vulnerable ecosystems can be identified where successful adjustment to new conditions is unlikely. The most vulnerable habitats include sand dunes, lowland calcareous grasslands, montane heath, raised bogs, calcareous fens, turloughs and upland lakes. Increased decomposition of Irish peatlands will be facilitated mainly by cracking during drier periods and will be further exacerbated by compositional changes. The suitable climate area for fens may have declined by 40% by mid-century with corresponding losses for raised and blanket bogs of over 30% and 45% for turloughs over the same period.

4.4.11 Emissions Projections

In 2021, the EPA published an update on Ireland's Greenhouse Gas Emissions Projections to 2040[13]. Ireland's target is to achieve a 30% reduction of non-Emissions 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 period 2020 – 2030.

Greenhouse gas emissions are projected to 2040 using two scenarios; '*With Measures'* and '*With Additional Measures'*. The '*With Measures'* scenario assumes that no additional policies and measures, beyond those already in place by the end of 2019 are implemented. The '*With Additional Measures'* scenario assumes implementation of the '*With Measures'* scenario in addition to full achievement of Government renewable and energy efficiency targets for 2040, as set out in the

[13] https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/EPA-Irelands-Greenhouse-Gas-Emissions-Projections-report-2020-2040v2.pdf [Accessed: 09/03/2023]

National Renewable Energy Action Plan and the National Energy Efficiency Action Plan.

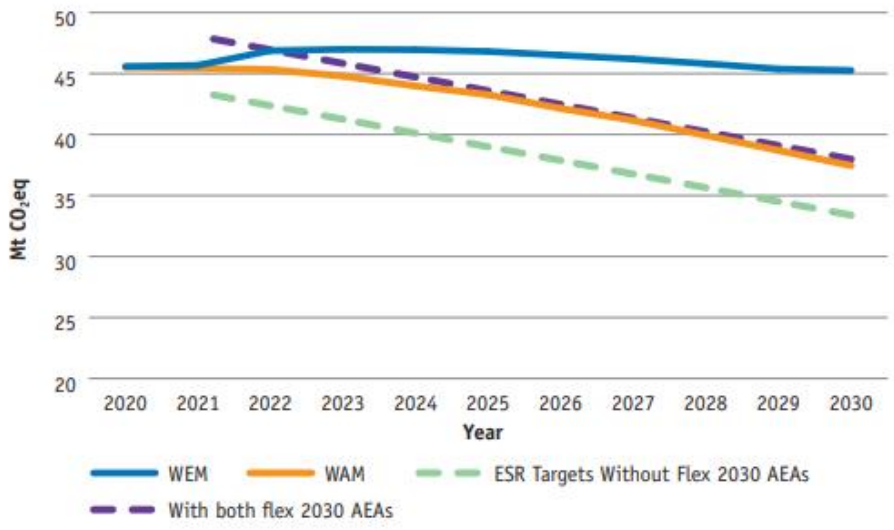
The EPA Emission Projections (2021) notes the following key trends:

- Ireland's non-Emissions Trading Scheme (ETS) emissions are projected to be 6% and 11% below 2005 levels in 2030 under the 'With Measures' and 'With Additional Measures' scenarios, respectively. The target for Ireland is a 30% reduction.

- Ireland is projected to cumulatively exceed its Effort Sharing Regulation (ESR) emissions allocation in both scenarios over the period 2020 – 2030. Ireland is projected under the scenario 'With Existing Measures' to cumulatively exceed its compliance obligations by 51.3 Mt CO2 (metric tonnes of Carbon Dioxide). Under the 'With Additional Measures' scenario Ireland is predicted to cumulatively exceed its compliance obligation by 11 Mt CO_2.

The graph Figure 15. Should only be used a visual interpretation.

Figure 15: Projected Non ETS emissions and estimated Annual Emission Allocations (AEAs) with and without use of flexibilities under the Effort Sharing Regulation (ESR) for the period 2021-2030[22]



It is clear that, Ireland faces significant challenges in meeting emission reduction targets for 2030 and beyond [7]. In the EPA's document "*Ireland's Greenhouse Gas Emission Projections 2020 – 2040*" published in June 2021, under the "*With Additional*

Measures Scenario", Ireland is projected to cumulatively exceed its obligations in relation to emissions reduction by 11 Million tonnes CO_2 equivalent over the period 2020-2030.

4.5 NATIONAL CLIMATE CHANGE POLICY

4.5.1 Climate Action Plan 2021

In May 2019 the Irish Dail declared a "climate emergency". As a response to combat this emergency the Government published the *Climate Action Plan 2019* on 17 June 2019. The plan recognises that decisive and urgent action is required to arrest the acceleration of greenhouse gas emissions within the limited window of opportunity that remains. The Climate Action Plan 2021 was published in November 2021.

On the 21st of December 2022 the *Climate Action Plan 2023 (CAP 2023)* was published to replace the 2021 Plan. The CAP 2023 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting us on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.

The Plan is ambitious, affecting almost every sector of the economy. The key difference however, between this Plan and previous ones is that it creates new governance structures necessary to implement the far-reaching changes. The key focus of the Plan is to identify how the Government plans to reduce Ireland's, still growing, greenhouse gas emissions. The scale of the challenge is huge, and the Plan identifies the need for everyone to contribute in tackling the challenges posed by climate change. It includes increased renewable electricity targets, the end of single use non-recyclable plastics and new building regulations. The Plan includes a new commitment to make Ireland 100% carbon neutral by 2050 and contains action points designed to achieve our national climate change targets.

The main points in the 2023 Plan, in relation to electricity generation are as follows:

- *"Increase renewable electricity – wind and solar up to 80% by 2030*
- *Separate small scale generator scheme for farmers, business and communities to generate electricity and sell to the grid*
- *Reduce emissions from electricity by 75% from 2018 levels*
- *Deliver three new transmission grid connections or interconnectors to Northern Ireland, Great Britain, and the EU*
- *Complete the phase-out of coal and peat-fired electricity generation*

- *Review data centre strategy to ensure the sector supports renewables and emissions targets"*

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

The Climate Action and Low Carbon Development (Amendment) Act is an ambitious piece of legislation. The Climate Action and Low Carbon Development (Amendment) Act 2021 sets out the legal framework for Ireland's transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy by no later than 2050.

The Act includes the following key elements:

- This Act includes the process of setting binding and ambitious emissions-reductions targets in law.
- The Act provides that the first two five-year carbon budgets should equate to a total reduction of 51% over the period to 2030, relative to a baseline of 2018.
- The role of the Climate Change Advisory Council has been strengthened.
- The government must adopt carbon budgets that are consistent with the Paris Agreement and other international obligations.
- The Government will conduct consultation and determine how to apply the carbon budget and what each sector will contribute over the 5-year period.
- Actions for each sector will be detailed in the Climate Action Plan which must be updated annually.
- Government Ministers will be responsible for achieving the legally binding targets for their own sectoral area with each Minister accounting for their performance towards sectoral targets and actions before an Oireachtas Committee each year.
- Local Authorities must prepare individual Climate Action Plans, to be aligned with the Local Authority Development Plans, which will include both mitigation and adaptation measures and will be updated every five years.
- Public bodies will be obliged to take account of Climate Action Plans in the performance of their functions.

4.5.3 National Energy & Climate Plan 2021-2030

Under the proposed Governance of the Energy Union and Climate Action Regulation ,EU Member States were required to submit an initial draft National Energy and Climate Plan (NECP) to the European Commission by 31 December 2018. Ireland submitted its draft National Energy & Climate Plan (NECP) 2021-2030 in December

2018. Once a draft NECP has been received, the European Commission engaged in an iterative process with the Member State prior to Plan finalisation one year later i.e. by 31 December 2019. The European Commission may issue recommendations to the Member State on their draft NECP no later than 30 June 2019. The deadline for submission of feedback on this initial public consultation closed at 5pm on Monday, 12 November 2018.

4.5.4 National Mitigation Plan 2017

Ireland's first statutory National Mitigation Plan (NMP), published in July 2017, gives effect to the provisions of the Climate Action and Low Carbon Development Act, 2015, and represents a landmark national milestone in the evolution of climate change policy in Ireland and provides for the statutory basis for the transition to a low carbon, climate resilient and environmentally sustainable economy by 2050.

The NMP reaffirms Ireland's commitment to concerted and multilateral action to tackle climate change following the adoption of the legally binding Paris Agreement, of which Ireland is a co-signatory. Under the Paris Agreement, the EU is committed to reducing greenhouse gas emissions by at least 40% by 2030, compared with 2030 levels. The Paris Agreement represents a landmark accord in tackling climate change, which is recognised by all parties as the defining global issue of this generation. The NMP addresses the role of local authorities in facilitating the transition towards a low carbon economy and recognises that this requires engagement from all levels of Government and that a bottom-up approach is also essential to promote awareness and engagement within individual communities across Ireland. The NMP further states that there *"is also recognition within the Local Authority sector of the need for the sector to assume a leadership role within their local communities to encourage appropriate behavioural change*". Moreover, the Plan emphasises that local authorities also have a key role to play "*in addressing climate change mitigation action and are well placed to assess, exploit and support opportunities within their administrative areas, in cooperation with each other and with national bodies, and through the involvement and support of local communities*".

The NMP further emphasises the important role wind energy development plays in its contribution to renewable energy deployment in the state and in the progress towards renewable energy targets. I

4.5.5 Climate Action and Low Carbon Development Act 2015

The Climate Action and Low Carbon Development Act, 2015 was signed into law on 10 December 2015. The Act 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 level greenhouse emissions);
- A national adaptation framework (to provide for responses to changes cause 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.

4.5.6 National Policy Position on Climate Action and Low Carbon Development

The National Policy Position on Climate Action and Low Carbon Development, published by the Department of Environment, Community and local Government in July 2021, provides a high-level policy direction for the adoption and implementation by Government of plans to enable the State to move to a low carbon economy by 2050. The position paper acknowledges that the evolution of climate policy in Ireland will be an iterative process, based on the adoption by Government of a series of national plans over the period to 2050. Statutory authority for the plans is set out in the Climate Action and Low Carbon Development (Amendment) Act 2021.

4.5.7 National Climate Change Adaption Framework 2012

Ireland's first National Climate Change Adaptation Framework (NCCAF), which was published in December 2012, aims to ensure that adaptation actions are taken across key sectors and also at local level to reduce Ireland's vulnerability to climate change. The NCCAF requires the development and implementation of sectoral and local adaptation plans which will form part of the national response to the impacts of climate change. Each relevant Government Department (or State Agency, where appropriate) are required to prepare adaptation plans for their sectors. 12 Sectors were identified in total including Transport, Flood Defence, Agriculture and Energy. The Climate Action and Low Carbon Development Act 2015 puts the development of

National Climate Change Adaptation Frameworks and Sectoral Adaptation Plans on a statutory basis.

The Climate Action and Low Carbon Development Act 2015 states that the first statutory National Climate Change Adaptation Framework has to be approved by Government by 9 December 2017 and will be reviewed at least every 5 years after that. Following approval of the statutory National Adaptation Framework, Section 6 of the Act requires the Government to request all relevant Government Ministers to prepare sectoral adaptation plans covering the relevant sectors under their remit within a specified time period. The Draft National Adaptation Framework Plan was published in September 2017, for public consultation. The final version was published in January 2018.

4.6 STRATEGIC PLANNING CONTEXT

4.6.1 Key Sustainability Elements of the National Planning Framework

A key focus running throughout the NPF is the fostering of a transition toward a low carbon, climate-resilient society. In this regard the NPF states that Ireland must "*reduce greenhouse gas emissions from the energy sector by at least 80% by 2050, compared to 1990 levels".* Furthermore, the framework states: *"In the energy sector, transition to a low carbon economy from renewable sources of energy is an integral part of Ireland's climate change strategy and renewable energies are a means of reducing our reliance on fossil fuels".*

The NPF further states the need to *"develop capacity for new forms of self-reliance including reducing our dependence on imported energy*" and references the National Climate Policy Position which established the fundamental national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050.

In relation to energy production, the NPF emphasises that rural areas have a strong role to play in securing a sustainable renewable energy supply for the country and acknowledging that rural areas have significantly contributed to the energy needs of the country.

Key features identified in the NPF to facilitate the transition towards a low carbon energy future include:

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

Section 10 sets out a series of desired National Strategic Outcomes, underpinned by the national planning objectives set out in the NPF in combination with governance arrangements and aligned with capital investment. 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 wherein is it stated:

"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 to 2030 and beyond. It is expected that this increase in renewable deployment will lead to a greater diversity of renewable technologies in the mix."

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. 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.

Moreover, the NPF states the need to "*Roll-out of the National Smart Grid Plan enabling new connections, grid balancing, energy management and micro grid development."*

4.7 REGIONAL AND COUNTY POLICY

4.7.1 Regional Spatial and Economic Strategy

The Southern Regional Assembly has produced a Spatial and Economic Strategy 2020- 2032. The objective of the RSES is to support the implementation of the

National Planning Framework – Ireland 2040 and the economic policies and objectives of the Government by providing a long-term planning and economic framework which shall be consistent with the NPF and the economic policies or objectives of the Government.

The RSES has been informed by an Environmental Report that has been prepared in accordance with the SEA Directive and the Planning and Development (Strategic Environmental Assessment) Regulations S.I. No. 436/2004 (as amended), accompanied by a Regional Flood Risk Appraisal Report. Section 8.3 of the document outlines how the electrical grid network in the region must develop to accommodate diverse renewable energy resources.[14]

4.7.2 Waterford City and County Development Plan 2022 – 2028

The Waterford City and County Development Plan (CDP) 2022 – 2028 sets out Waterford City and County Council's policies and objectives for the proper planning and sustainable development of the County from 2022 to 2028. The CDP seeks to develop and improve, in a sustainable manner, the social, economic, cultural, and environmental assets of the County.

The Plan acknowledges climate change considerations will be taken into consideration in the assessment of critical transport and energy infrastructure proposals. Support for renewable energy development, including community initiatives, will enhance local climate mitigation and energy self-sufficiency, while delivering economic, social and environmental benefits for the County.

Waterford City & County Volume 1 - Written Statement Development Plan 2022-2028

The Council will have taken a proactive approach towards development that promotes and facilitates appropriate and sustainable development, that nonetheless:

- Ensures the sustainable use of natural resources.
- Enables us to live within the area's environmental capacity;
- Enables and enhances our resilience to climate change; and,
- Creates a more open, diverse, and inclusive society."

14Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly. https://www.nwra.ie/rses/

Sea Environmental Report Appendix IV – NON-Technical Summary Waterford City and County Development Plan 2022-2028. Strategic Environmental Objectives:

- To minimise emissions of greenhouse gasses
- Integrate sustainable design solutions into the City and County's infrastructure (e.g. energy efficient buildings; green infrastructure)
- Contribute towards the reduction of greenhouse gas emissions in line with national targets
- Promote development resilient to the effects of climate change
- Promote the use of renewable energy, energy efficient development and increased use of public transport

It states under Section 6.6 Renewable Energy of the CDP that: *"There is significant potential to use renewable energy (solar, biomass, anaerobic digestion, hydro, wave, and on/offshore wind), including through micro-generation (which typically assist in lowering energy demand), to achieve climate change emission reduction targets. Low carbon technologies present economic opportunities for various sectors, and green technology development is emerging as a major field of innovation and growth."*

The Council recognises the potential of the County for generating electricity by means of renewable energy such as windfarms and supports renewable energy development subject to the protection of the environment and visual amenity.

Section 6.9 of the CDP provides policy objectives in respect to Windfarms and states:

"The Planning Authority will have regard to the DoEHLG's Wind Energy Development Guidelines (June 2006) and any revised guidelines, when considering wind energy applications."

The Guidelines outline the main criteria to be used in assessing development proposals. These criteria include:

- environmental impact – effects on landscape, natural and archaeological heritage;
- seeking visual harmony and balance – choice of turbines, towers, colour and siting;

- keeping secondary structures to a minimum – buried on-site cabling, minimal fencing, transformers placed inside towers where possible;
- keeping access roads to a minimum – using established roads where possible and following natural contours if roads are necessary;
- managing the building site – removing waste, avoiding erosion, replanting the land.

"*In assessing proposals for wind farms, the Council will require detailed information to Environmental Impact Assessment (EIA) standard. Assessment in accordance with government guidelines will have regard to visual impact (including the scarring effect of access roads), noise, electro-magnetic interference, ecological impact, safety (including aircraft safety and navigation) and land use implications."*

Windfarm proposals will generally be discouraged in or close to the following:
Proposed National Heritage Areas (pNHAs), Considered Special area of Conservation (cSACs), Special Protection Areas (SPAs). Also, designated Sensitive Rural Landscapes, Visually Vulnerable Areas, Scenic Routes, protected views, Zones of Archaeological Potential.

Section 11.1 - Energy of the CDP states:

"*Energy consumption is responsible for 80% of total EU greenhouse gas emissions. To address this, Member States are required to significantly increase their use of renewable energies and to improve energy efficiency in all sectors. Renewable energy is also crucial to national energy security".*

Climate Action Policy Objectives:
ECON 20 Green Technology & the Just Transition to a Low Carbon Economy.
We will support the development of sustainable economic pathways to achieve a reduction in our CO2 emissions across all sectors and the development of low carbon and green tech businesses and industries throughout Waterford City and County.

Appendix 7 of the CDP States: Renewable Energy Strategy for Waterford City & County 2016-2030 Appendix 7 – Vision of Renewable Energy Strategy:

"To provide a strategy to maximise Waterford's renewable energy potential and its transition to becoming a more energy secure, low carbon county in line with

national energy targets whilst balancing the need to protect the environmental, social and heritage assets of the city and county."

In Section 9.1- Climate Change - Environmental Quality Policy Objectives
ENV 04: Air and Energy *"We will contribute towards compliance with air quality legislation; greenhouse gas emission targets; management of noise levels; and reductions in energy usage."*

In section 6.6 Renewable Energy Targets 2030:
The Renewable Energy Targets Table outlines the 2030 Targets. The current onshore Wind Energy Target 2030 is 211.20 MW. Currently there is a 94.41MW shortfall. It is noted these targets are considered to be minimum targets.

4.7.3 Landscape Appraisal

The Council commissioned a Landscape Character Assessment (LCA) of the County. The LCA has been used as a guidance document to inform policy on afforestation and windfarms, as referred to in the *Criteria for the accommodation of Windfarms* listed in section 4.7.2 above.

4.7.4 Other Relevant Guidelines

4.7.4.1 DoHPCLG Department of Housing, Planning, Community and Local Government Guidelines

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 s.28 in the performance of their functions under the Planning and Development Acts 2000, as amended. These Interim Guidelines did not replace or amend the existing 2006 Wind Energy Guidelines (WEGs). It was intended that the subject matter of the Interim Guidelines would be included in amendments to the WEGs. It was envisaged that, after the adoption of amendments to the WEGs (which has not yet occured) the Interim Guidelines would cease to have effect.

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."*

4.7.4.2 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 circular (PL05/2017) reconfirms that this continues to be the advice of the Department.

The Department circular also reaffirms 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.

The release of Circular Letter PL05/2017 and the Interim Guidelines coincide with the publication of Ireland's first statutory National Mitigation Plan (discussed in Section 4.5.4. above).

4.7.4.3 DoEHLG Wind Energy Guidelines (Draft revised) 2019

In December 2019, the then Department of Environment, Heritage and Local Government (DoEHLG) published a revised draft '*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 provide for consistency of approach throughout the country in the identification of suitable locations for wind energy development. Each wind project has its own characteristics and defining features, and it is therefore impossible to write specifications for universal use. Guidelines should be applied practically and do not replace existing national energy, environmental and planning policy.

IWEA Best Practice Guidelines for the Irish Wind Energy Industry 2012

Wind Energy Ireland (WEI) formly 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).

4.7.4.4 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 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 see 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. Details of the community engagement and financial contributions undertaken by the developer are outlined in **Chapter 1: Introduction (Section 12.9)** of this document.

4.7.4.5 Enduring Connection Policy Stage 2 (ECP-2)

The Irish energy regulator, the Commission for Regulation of Utilities (CRU), has introduced a new grid connection policy - Enduring Connection Policy (ECP). ECP-1 was the first stage of the CRU's development of enduring connection policy in Ireland. On the 27 March 2018 the CRU published their decision on ECP-1. The ECP-1 applications window opened on 27 April 2018 and closed on 28 May 2018.

ECP-2 is the second stage of the CRU's development of enduring connection policy in Ireland. On the 10 June 2020 the CRU published their decision on ECP-2, which set policy for at least three annual batches of connection offers (ECP 2.1, ECP-2.2,

and ECP-2.3). The ECP-2 applications window is open for the month of September each year (i.e. 1 September 2020 – 30 September 2020 for ECP-2.1). The application window for the first batch, ECP-2.1, closed September 30th 2020. Under ECP-2, grid connection applications are categorised as either Category A, Category B or Category C. The application window for ECP-2.3 application window for all Category A (Batch) - Generation, storage and other system services technology projects (MEC >0.5MW) - closed on 30th September 2022.

The ECP application process aims to eliminate speculative applicants and allow viable projects to be delivered. It is expected that, as a result of the ECP system, project development / project finance risk will significantly diminish, reducing one of the key barriers for developers and financers in the Irish market.

4.7.4.6 Renewable Electricity Support Scheme (RESS)

The present Renewable Electricity Support Scheme (RESS) replaces the former Renewable Energy Feed-in Tariff (REFIT) support scheme. It is intended that the new Renewable Electricity Support Scheme will provide support to renewable electricity projects in Ireland. With a primary focus on cost effectiveness, the RESS will deliver a broader range of policy objectives, including:

- An Enabling Framework for Community Participation through the provision of pathways and supports for communities to participate in renewable energy projects
- Increasing Technology Diversity by broadening the renewable electricity technology mix (the diversity of technologies)
- Delivering an ambitious renewable electricity policy to 2030
- Increasing energy security, energy sustainability and ensuring the cost effectiveness of energy policy

RESS auctions will be held at frequent intervals throughout the lifetime of the scheme. This will allow Ireland to take advantage of falling technology costs and by not auctioning all the required capacity at once; we will not be 'locking in' higher costs for consumers for the entirety of the scheme. The Scheme will provide for a renewable electricity (RES-E) ambition of up to a maximum of 55% by 2030, subject to determining the cost-effective level which will be set out in the draft National Energy and Climate Plan (NECP) 2020.[15]

[15] https://www.gov.ie/en/publication/0015c-irelands-national-energy-climate-plan-2021-2030/

In terms of Communities, all projects looking for support under the new RESS will need to meet pre-qualification criteria including offering the community an opportunity to invest in and take ownership of a portion of renewable projects in their local area. A national register of community benefit payments will also be established.

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

4.9 METHODOLOGY FOR CUMULATIVE ASSESSMENT OF PROJECTS

The potential cumulative impact of the proposed wind farm development combined with the potential impact of other projects has been carried out with the purpose of identifying what influence (if any) the proposed development will have on the surrounding environment when considered collectively with permitted and constructed projects in the vicinity of the proposed site location.

4.10 CONCLUSION

The proposal meets with the majority of the relevant planning policies identified in this EIAR chapter. In particular, the National Planning Framework and The Climate Action Plan 2023 and the Climate Action and Low Carbon Development (Amendment) Act 2021 where there is an identified and pressing need to meet the ambitious targets for 2050. The Project will make an important contribution to the ambitious targets set out in The Climate Action Plan 2023. In addition to the inherent benefits of creating and expanding upon the existing mix of renewables in Ireland's electricity system, the Project will offer a number of major opportunities:

- Reduces dependency on fossil fuels resulting in lower carbon dioxide (CO2) emissions and output;
- Utilises the latest turbine technology, sustaining and growing the level of renewable energy in Ireland;
- Sustains existing development and construction jobs and creates opportunities for new supply chain jobs;
- With a supportive planning framework, it can help create a long-term, stable investment platform;
- Wider economic and social benefits.

There is specific supporting international, national, regional, and local policy and/or guidance for commercial onshore wind energy development in Ireland. The County Waterford County Development Plan is considered supportive of the development of renewable energy technology, particularly in the context of reducing the carbon emissions of the country and meeting renewable energy production targets, notwithstanding the 2016 – 2030 Renewable Energy Plan for County Waterford changing areas of the county previously categorised as open to consideration or suitable for wind energy. This designation has changed in the most recent County Development Plan 2022-2028 to an 'Exclusion zone' area for wind development. This has been addressed in detail in **Chapter 11: Landscape and Visual Amenity** and the accompanying **Planning Statement** submitted with the EIAR. The planning statement outlines the justification for the development which will **not significantly impact** the surrounding area. The development still strongly supports national policies and other local authority policies.