2. BACKGROUND

This section of the remedial Environmental Impact Assessment Report (rEIAR) presents information on the planning policy and context of the Cleanrath wind farm development in the context of European and National climate change and renewable energy policy and targets. This is carried out by setting out the national, regional and local planning policies and objectives, relevant planning history and discussing the scoping, consultation and cumulative impact assessment process that has been undertaken. As noted in the previous chapter Cleanrath Wind Farm, was previously granted permission by both Cork County Council (the Planning Authority) under Planning Ref. 15/5966 and An Bord Pleanála (ABP) Ref: PL04 .246742, although a Supreme Court Judgement given on the 12th of December 2019 held that it was necessary to quash the decision of the Board. It must be noted that while the decision to grant permission under Pl. Ref. 15/5966/ABP PL04.246742 must be set aside, other permissions associated with separate elements of the Cleanrath wind farm have been granted permission and those consents remain in effect and have not been challenged. Therefore there are ancillary components and infrastructure associated with the wind farm, which continue to benefit from full grants of permission. In the interests of clarity please note that the elements of infrastructure which already enjoy the benefit of full permission and which comprise part of the Cleanrath wind farm development are assessed within this rEIAR in order to ensure a comprehensive and complete assessment, however, they continue to enjoy the benefit of full and unchallenged planning permission.

The purpose of the Cleanrath wind farm development is to generate and export renewable energy for use on the national grid. The need to decarbonise the economy and reduce associated greenhouse gas (GHG) emissions has always been imperative, however, the urgency involved has become clearer to all stakeholders. The Climate Action Plan, published by the Government in 2019, clearly sets out the need for and urgency of change, as reproduced below:

> *"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."*

The primary driver behind the Cleanrath wind farm 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.

As further discussed in the relevant chapters of this rEIAR, there have been no significant environmental / ecological impacts arising from the Cleanrath wind farm development. Specifically, it must be noted that the development has not caused significant impacts on the environment or the integrity of a European site or the receiving environment. As such, issuing substitute consent for the Cleanrath wind farm development will further facilitate and contribute to Ireland's progression towards the achievement of its binding European renewable energy targets and relevant climate change / renewable energy policies at all levels of governance without penalty to the environment or Natura 2000 network.

2.1 Strategic Planning Analysis

2.1.1 Climate Change Policy and Targets

Climate change 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 o 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 1.8oC by the 2050's and by more than 2°C by the end of the century due to climate change. Under a recent report published by the EPA titled *"Irish Climate Futures: Data for Decision-making"* (June 2019) the following is acknowledged:

> *"That the world has warmed since the 19th century is unequivocal. Evidence for warming includes changes in surface, atmospheric and oceanic temperatures; glaciers; snow cover; sea ice; and sea level and atmospheric water vapour."*

The report further notes that should 'business as usual' continue, the Earth's average temperature is likely to increase by between 2.6°C and 4.8°C above today's levels. Against this backdrop for Ireland, predicted changes are likely to result in extensive direct and indirect harm to Ireland and its people, as well as to other countries more exposed and less able 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; and
- Acknowledgement that the pollutants associated with climate change are also damaging to human health.

Future precipitation changes are less certain to project than temperature but constitute the most important aspect of future climate change for Ireland. The STRIVE report 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, due to a predicted reduction of frost days, lengthier rainfall events in winter and more intense downpours and an increased propensity for drought in summer, are also projected under climate change scenarios. The STRIVE report concludes that Ireland '*can and must*' adapt to the challenge of climate change.

2.1.1.1 International Policy

United Nations Framework Convention on Climate Change

In 1992, countries joined an international treaty, the United Nations Framework Convention on Climate Change (UNFCCC), as a framework for international efforts to combat the challenge posed by climate

change. The UNFCCC seeks to limit average global temperature increases and the resulting climate change. In addition, the UNFCCC seeks to cope with impacts that are already inevitable. It recognises that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The framework did not set binding limits on greenhouse gas emissions for individual countries and does not contain any enforcement mechanisms. Instead, the framework outlines how specific international treaties (called "protocols" or "Agreements") may be negotiated to set binding limits on greenhouse gases.

Kyoto Protocol Targets

Ireland is a Party to the Kyoto Protocol, which is a protocol to the UNFCCC. The Kyoto Protocol is 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.

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.

COP21 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 was organised by the United Nations in Paris and held from 30th November to 12th December 2015. COP21 closed with the adoption of the first international climate agreement (concluded by 195 countries and applicable to all). The 12-page text, made up of a preamble and 29 articles, provides for a limitation of the global average temperature rise to well below 2°C above pre-industrial levels and to limit the increase to 1.5°C. It is flexible and takes into account the needs and capacities of each country. It is balanced as regards adaptation and mitigation, and durable, with a periodical ratcheting-up of ambitions.

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

COP25 Madrid– 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, as indicated above, 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 achieving this curtailment of rising global temperature 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 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 no. pacific islands and 2 no. 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.

2.1.1.2 Emissions Projections for Ireland

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 National Renewable Energy Action Plan (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; and
- 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

Ireland exceeded its annual binding limits in 2016 and 2017. 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. Notwithstanding, the EPA report acknowledges 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"*.

As such, there is a strong precedent for granting the Cleanrath wind farm development permission in order to facilitate greater penetration of renewable energy on to the grid in order to assist with national decarbonisation efforts.

2.1.1.3 National Policy

National Policy Position on Climate Action and Low Carbon Development (2014)

The National Policy Position on Climate Action and Low Carbon Development, published by the Department of Environment, Community and Local Government in April 2014, 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 Act 2015.

Climate Action and Low Carbon Development Act (2015)

The Climate Action and Low Carbon Development Act 2015 was signed into law on the 10th 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 greenhouse gas emissions levels); - see below
- 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.

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 and builds on the work already carried out under the National Climate Change Adaptation Framework (NCCAF, 2012). The NAF, on the basis of evolving climate change literature within recent years, identifies a number of key facts which will need to be considered when designing adaptation measures and addressing climate change going into the future:

- 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;
- Sufficient robust information exists nationally to further progress the process of implementing adaptation actions and increasing social, economic and environmental resilience to climate change;
- 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; and
- The impacts and risks of climate change can be reduced and managed through mitigation and adaptation actions

The Framework acknowledges that, as per the Intergovernmental Panel on Climate Change (IPCC, 2013), 95% probability that the global warming of the last 50 years is a result of human activities. Specifically, the main contribution to this warming has come from the burning of fossil fuels. The Framework provides a number of guiding principles for adaptation at national level, regardless of how successful efforts to mitigate greenhouse gas emissions (GHG) emissions prove to be, as the impact of climate change will continue over the coming decades due to the delayed impacts of past and current emissions. The Framework concludes that there is limited choice in the context of climate change other than to implement adaptation measures simultaneously with on-going mitigation measures (e.g. the

continued development and integration of renewable energy infrastructure) to deal with the unavoidable climate change impacts and associated economic, environmental and social costs. The Framework 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."*

This policy ethos is broadly recognised at all levels of governance as indicated by varied and comprehensive climate change / renewable energy policies and objectives. It is detailed under the NAF that a number of Government Departments will be required to prepare sectoral adaptation plans in relation to the priority area that they are responsible for.

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

In March 2019, the Joint Committee on Climate Action Change released a report detailing a cross party consensus for action. The report, in its introduction, notes that *"Irelands performance in meeting international obligations has to date been poor".* The Report highlights on-going concern regarding emission projections and growing evidence that Ireland, who is not projected to meet its 2020 targets, is also off track in meeting its 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 that will include:

1. *A target of net zero economy-wide 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; and*
4. *A target for the renewable share of electricity generation of 70% by 2030.*

Further to this, the Committee acknowledged that the measures which are currently in place, in addition to those suggested within the Report, remain insufficient in meeting Ireland's targets and further action is required. The report states that the transformation of Ireland's energy system will be required for the country to meet its future 2030 and 2050 GHG emission targets; specifically, to reach net zero emissions by 2050, Ireland will be required to fully decarbonise electricity generation. Therefore, there is a clear incentive for developing Ireland's capacity in renewable energies and renewable electricity in particular.

The Report details that onshore wind energy is currently the primary source of renewable electricity within Ireland, accounting for 84% of renewable power generated in 2017. While acknowledging that there are challenges in relation to securing additional on-shore wind energy, the Committee emphasises its support for the increased provision of on-shore wind farm development at appropriate locations as wind energy has a pivotal role to play in achieving climate action targets. As the Cleanrath wind farm development has not resulted in significant environmental / ecological impacts, and previously enjoyed the benefit of planning consent issued by An Bord Pleanála it is fair to assume that it is appropriately located, consistent with national policy as well as the requirements of proper planning and sustainable development and should, in the context of the need and justification for development, be granted consent.

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. Similar to Joint Committee on Climate Action Change's Report, the overall aim of the CAP is to deliver a significant step-change in Ireland's emissions performance over the coming decade such that EU targets for 2030 are met and the country will in a position to successfully achieve its mid-century decarbonisation objectives. Figure 2-3 below depicts Irelands decarbonisation pathway up to the year 2030. The below will be used to manage Irelands decarbonisation pathway and details the path for the various sectors:

	Technology	NDP 2030	Uptake to meet 2030 targets (Based on MACC analysis) 2025	2030
Electricity	**Total RES in Generation mix[4], %**	**55**	**52**	**70**
	• Onshore wind, GW	~7	~6.5	~8.2
	• Offshore wind, GW	1.8	~1.0	~3.5
	• Solar PV, GW	1.5	~0.2	~0.4
Transport	**Electric Vehicles, #**	**498,000**	**181,500**	**336,000**
	• Passenger EVs, #	355,000	57,000	550,000
	• Passenger PHEVs, #	118,000	94,000	290,000
	• Electric delivery vans, #	19,000	30,000	61,000
	• Electric trucks, #	n.a	0	34,000
	• Electric buses, #	1,250	500-600	1,000-1,200
	Bioethanol blend, Volume	**E10**	**E10**	**E10**
	Biodiesel blend, Volume	**B12**	**B12**	**B12**
Built Environment	**Retrofitted homes[1], cumulative 2021-30, #**	**450,000**	**300,000**	**500,000**
	Electric heating sources, total residential, #	**370,000**	**350,000**	**600,000**
	• New buildings, #	200,000	50,000	200,000
	• Existing buildings, #	170,000	300,000	400,000
	Electric heating sources, total commercial, #	**15,000[3]**	**15,000**	**25,000**
Enterprise	**Emissions, $MtCO_2eq.$**	**9**	**8**	**8**
	• Alternative fuels in cement fuel mix, %	N/A	65%	80%
	• CO2-neutral heat generation in food industry[2], %	N/A	~70%	~80%
Agriculture	**Emissions, $MtCO_2eq.$**	**21**	**19**	**18**
	• Fertilizers CAN replacement, %	N/A	40%	50%
	• Trailing-shoe slurry spreading, %	N/A	30%	50%
Other (e.g. waste)	**Emissions, $MtCO_2eq.$**	**3.2**	**3.2**	**3.2**

"Solar PV, some electrification of buses, and biofuel blending are identified in 2030 the NDP scenario but are not showing as cost-effective in MACC. Despite MACC analysis these technologies may remain in plan given other factors (e.g., exchequer cost, ease of implementation, need for public sector leadership)

1 Retrofit to B2 BER fabric equivalent
2 Includes biomass and electricity
3 Not specified in NDP, estimated based on residential ratio
4 RESS competitive auction determines the final mix

Figure 2-1. Irelands Decarbonisation Pathway Dashboard to 2030

Relevant to the Cleanrath wind farm development, Chapter 7 of the CAP details the Plan's views surrounding electricity generation. Within Ireland, electricity accounted for 19.3% of Ireland's greenhouse gases in 2017. The CAP notes the following in this regard:

> *"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, a total of 30.1% of electricity produced in Ireland came from renewable sources whilst 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, 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'.* Specifically, the rapid growth of electricity demand in the country is projected to increase by 50% above existing capacity in the next decade. As Ireland will likely miss its 2020 targets, the continued decarbonisation of the energy network remains an essential component of this strategy in the context of 2030 and 2050 targets.

With regard to policy measures to date, the CAP notes that current frameworks 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 CAP states:

> *"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."*

Key Metrics	2017	2025 Based on MACC	2030 Based on NDP	2030 Based on MACC
Share of Renewable Electricity, %	~30%[20]	52%	55%	70%
Onshore Wind Capacity, GW	~3.3	6.5	N/A	8.2
Offshore Wind Capacity, GW	NA	1.0	N/A	3.5
Solar PV Capacity, GW	NA	0.2	N/A	0.4
CCGT Capacity, GW	~3.6	5.1	N/A	4.7

Figure 2-2. Potential Metrics to Deliver Abatement in Electricity

In the electricity sector, reaching a 70% share of renewable electricity would require 50-55% emissions reduction by 2030. Under Section 7.2 of the CAP, the following targets have been set out:

- Reduce CO_2 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

Achieving 70% renewable electricity by 2030 will involve increasing renewable electricity generation, reinforcing the existing grid network (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. Ultimately, the measures needed to deliver the 2030 targets centre on the increased harnessing of renewable energy. As indicated above in Figure 2-4, CAP identifies a need for an additional 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. The addition of the Cleanrath wind farm development to Ireland's deployable onshore wind farm fleet would result in a direct positive impacts on current output, and furthermore, the continued progression towards future targets. Accordingly, the CAP presents clear and unequivocal support for Cleanrath wind farm development in the context of it progressing Ireland's complete decarbonisation of its energy network.

2.1.2 Renewable Energy Policy and Targets

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 Ireland's 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[1]. 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.

As described in the previous section, 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. 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[2].

2.1.2.1 EU Legislation

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. The Directive establishes the "20-20-20" targets: a binding target of a minimum 20% reduction in greenhouse gas emissions based on 1990 levels, 20% of overall EU energy consumption to come from renewable sources by 2020, 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 2009/28/EC legally obliges each Member State to:

- Ensure that its 2020 target is met.
- Introduce "appropriate measures" and outline them in a National Renewable Energy Action Plan (NREAP). The "appropriate measures" include ensuring that grid-related measures and administrative and planning procedures are sufficient to achieve the 2020 target. The NREAP for Ireland was published in June 2010.

These targets represent an important first step towards building a low-carbon economy, and ultimately, a completely decarbonised system by 2050. They are also the headline targets of the Europe 2020 strategy for smart, sustainable and inclusive growth. This recognises that tackling climate and energy challenge contributes to the creation of jobs, the generation of "green" growth and a strengthening of Europe's competitiveness.

Ireland's mandatory target under the Directive is for renewable resources to account for 16% of total energy consumption by 2020. This will be met by 40% from renewable electricity, 12% from renewable heat and 10% from the renewable transport sector. The Sustainable Energy Authority of Ireland (SEAI) has acknowledged that:

> *'Meeting Ireland's 2020 renewable energy and energy efficiency targets will put Ireland on a low-carbon pathway to meet future targets in 2030 and 2050. An EU-wide reduction of 40% by 2030 has already been agreed by Member States. The EU, along with several other Member*

[1] *Sustainable Energy Authority of Ireland (SEAI) website, www.seai.ie*
[2] *'Energy in Ireland 2018 Report', SEAI, December 2018*

States, have set out ambitions to reduce greenhouse gas emissions by 80% to 95% by 2050, compared with 1990 levels.'

The European Commission report '*Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions*' was published in February 2017. This report provides a comprehensive overview of renewable energy deployment in the EU and progress towards meeting the 2020 targets. The report states that the vast majority of Member States are "*well on track in terms of renewable energy deployment*"; however, 4 no. Member States (Ireland, Luxembourg, the Netherlands and the United Kingdom) are currently projected not to meet their national binding targets. Although Ireland will effectively miss its '20-20-20' targets, the continued progression towards a '*safe, secure, sustainable and affordable energy*', will still benefit the country's overall transition to a low-carbon economy.

2.1.2.2 2030 Climate and Energy Framework

The 2030 Climate and Energy Framework (adopted by EU leaders in October 2014) marks the further development of EU renewable energy policy. The framework builds upon the EU 2020 climate and energy targets and sets three key targets for the year 2030:

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

The European Commission published its proposal for an effort sharing regulation on the allocation of national targets for greenhouse gas emissions for the period 2021-2030 in 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 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. Other key elements of the agreement include:

- The design of support schemes will provide for a possibility of technology specific support, aligned with state aid guidelines. The opening of renewable support towards neighbouring member states will be voluntary, at an aspirational pace of at least 5% between 2023 and 2026 and 10% between 2027 and 2030. Except for certain cases, member states will be obliged to issue guarantees of origin.
- Permit granting procedures will be simplified and streamlined with a maximum of two years for regular projects and one year in case of repowering, both extendable for an additional year in case of specific circumstances and notwithstanding environmental and judicial procedures. For small-scale projects below 10.8kW simple notification procedures will apply. Each member state may choose to apply simple notification procedures also to projects up to 50kW.
- The annual increase of energy from renewable sources in heating and cooling will be 1.3 percentage points indicatively, or 1.1 percentage points if waste heat is not taken into account.
- Via obligations on fuel suppliers, renewables will reach a level of at least 14% in transport by 2030, supplemented by a set of facilitative multipliers to boost renewables in different sectors.

The consent of the Cleanrath wind farm development will ensure that the forward progression toward these above targets is built upon going into the future.

2.1.2.3 Energy Roadmap 2050

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

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

The analysis found that decarbonising the energy system is technically and economically feasible. The Roadmap notes that all scenarios show the biggest share of energy supply technologies in 2050 comes from renewables. The share of renewable energy sources (RES) rises substantially in all scenarios; specifically, RES achieves at least 55% in gross final energy consumption in 2050, up 45 percentage points from 2011's level at around 10%. As such, a major prerequisite for a more sustainable and secure energy system is a higher share of renewable energy beyond 2020. Each of the scenarios assumes in the analysis that increasing the share of renewable energy and using energy more efficiently are crucial, irrespective of the particular energy mix chosen.

2.1.2.4 Progress on Targets

The overall share of renewables in primary energy generation stood at 9.3% in 2017, up from 7.9% in 2016. The target for Ireland is set at 16% share of renewable energy in gross final consumption (GFC) by 2020. As per SEAI National Energy Projections 2019, the contribution from renewables in 2005 was 2.8%, which, as of 2017, has risen to 10.6% of the GFC. Specifically, the share of electricity from renewable energy has increased fourfold between 2005 and 2017 – from 7.2% to 30.1% – an increase of 23 percentage points over 12 years. In absolute terms, there has been a fivefold increase in the volume of renewable electricity generated from 1,873 GWh in 2005 to 8,877 GWh in 2017. Of this, it was noted that wind energy accounted for 84% of the renewable electricity in 2017.

The June 2018 *'Off Target Report'* published by the Climate Action Network (CAN) Europe, which ranks EU countries ambition and progress in fighting climate change, listed Ireland as the second worst performing EU member state in tackling climate change. It also stated that Ireland is off course for its 2030 emissions target. Specifically, the report states:

> *"Ireland has failed to prepare effective policies to align near-term climate action with EU and Paris Agreement commitments. Without new, immediate and substantive efforts to cut emissions, Ireland faces annual non-compliance costs of around €500 million."*

The Department of Climate Change, Action & Environment (DCCAE) also reported on Ireland's progression toward its 2020 targets in their '*Fourth Progress Report on the National Renewable Energy Action Plan'* December 2017 that Ireland will achieve 13% of its 16% RES target by 2020. SEAI in their report '*Ireland's Energy Targets – Progress, Ambition & Impacts'* (April 2016) estimated that Ireland's inability to achieve its 2020 renewable energy targets will result in fines of between €65 million and €130 million per percentage shortfall on its overall binding target after 2020 until it meets its targets.

The Climate Change Advisory Council similarly 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 county to meet its future 2030 targets and beyond. The *Review* concludes that continued and additional investment in capacity and technologies in the renewable energy sector is required to reach these said targets.

Figure 2-5 below shows the latest data available for the share of renewable energies in gross final energy consumption according to the Eurostat online data and the targets that have been set for 2020. The share of renewables in gross final energy consumption stood at 18% in the EU-28 in 2018. The data shows that twelve member states have reached a share equal to or above their 2020 target. This is not the case with Ireland who, as evident in Figure 2-5, are still considerably below meeting its 2020 target. Per the 2018 data, Ireland were at 11.1% of its 16% target.

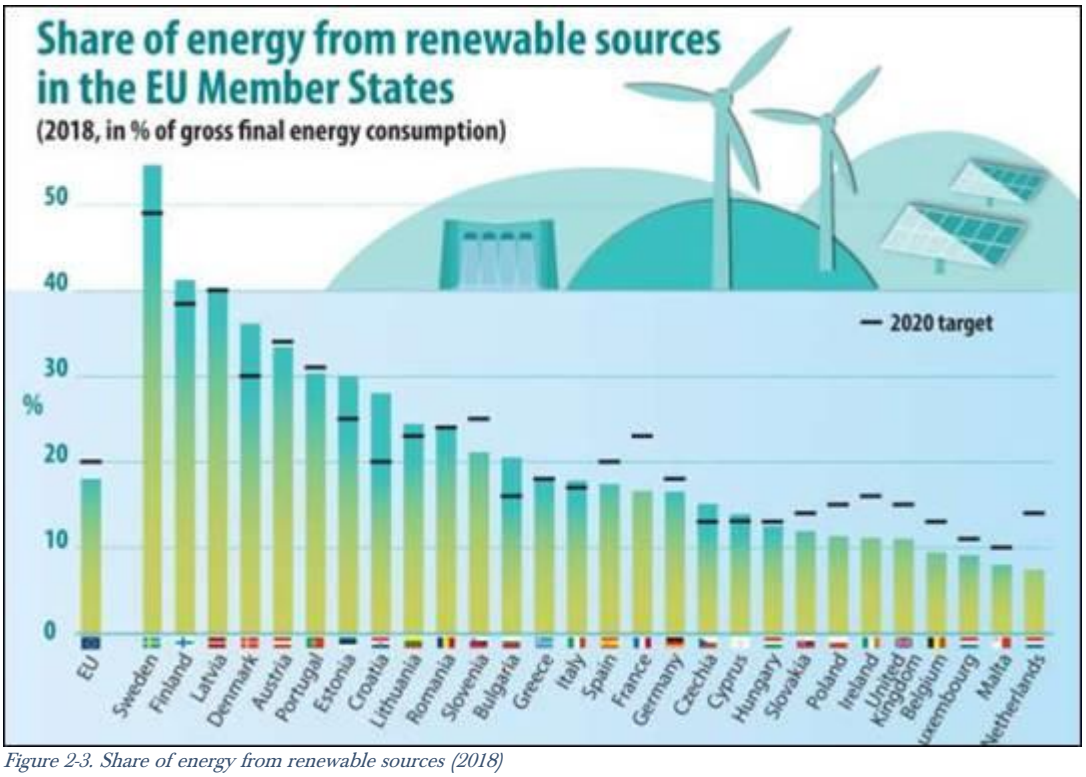

Figure 2-3. Share of energy from renewable sources (2018) (https://ec.europa.eu/eurostat/documents/2995521/10335438/8-23012020-AP-EN.pdf/292cf2e5-8870-4525-7ad7-188864ba0c29)

EirGrid in their '*All Island Generation Capacity Statement 2019 - 2028*' (September 2019), state that, in the absence of the National Energy and Climate Plan 2021 – 2030, it is assumed that renewable targets will be achieved largely through the deployment of additional wind powered generation in Ireland. New wind farms commissioned in Ireland in 2018 brought the total wind capacity to over 3666 MW, contributing to the increase in overall RES-E percentage to 32.5%, with wind energy accounting for 27.6%. EirGrid estimates that between 3.9 – 4.4 Gigawatts (GW) of wind may be required to meet the 2020 Renewable Energy Supply - Electricity (RES-E) target of 40%. The most likely scenario for installed wind capacity in 2020 is expected to be 4200 MW which would imply an average build-out of approximately 330 MW per year until the end of 2020 to achieve targets. In this context, the addition of wind energy output from the Cleanrath wind farm development would assist Ireland's overall capability to meet its future targets.

It is further noted by EirGrid that, at a median demand level, Ireland does not have adequate generation capacity to meet demand from 2026 once Moneypoint closes, and should any other plant close prior to this, earlier deficits may arise. This is especially pertinent with regard to the recent announcement that the Electricity Supply Board intends to close the peat-fired Shannonbridge and Lough Ree Power Stations at the end of 2020. As such, 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. Specifically, there is currently 1000 MVA demand capacity that is contracted to data centres and other large energy users. This statement notes that *'Large industrial connections normally do not dominate a country's energy demand forecast but this is the case for Ireland at the moment'*.

EirGrid analysis shows that demand from data centres could account for 29% of all demand by 2028 in a median demand scenario (accounts for the connection of all 1400MVA of potential demand in the connection process). The median demand scenario is now higher than last year's forecast for high demand, indicating the progression of many of the data centre projects. It should be noted that each MW of additional data centre load will add at least 1 MW of wind to the 40% RES-E 2020 target[3]. Alternatively, 3 MW of wind could be required per MW of data centre electricity demand, if the data centre wants to commit to being powered by 100% renewable energy. Many data centres have made such commitments. In October 2015, the Irish Wind Energy Association (IWEA) commissioned a study titled *'Data-Centre Implications for Energy Use in Ireland'* and concluded that an additional 1 GW of electricity demand may be required in Ireland by 2020 due to growth in data centres.

2.1.2.5 SEAI - National Energy Projections 2019

The SEAI National Energy Projections 2019, published in May 2019, acknowledges the significant increase in renewable energy share in Ireland over the past number of years. The report details that in 2005, 5% of Ireland's energy came from renewable sources, and in 2019, it is estimated that approximately 13% of Irelands energy will be generated by renewable sources. Notwithstanding, this current progress is still below the required 16% target. Compared to other European countries, Ireland was 22nd out of the EU-28 for overall renewable energy share and 26th out of the EU-28 for progress towards overall 2020 renewable energy target.

- 38.9% renewable electricity by 2020 (target is 40%);
- 9.8% renewable heat by 2020 (target is 12%); and
- 10.8% renewable transport by 2020 (target is 10%)

It is assumed that future renewable targets and future commitments will be achieved largely through the deployment of additional wind powered generation. In 2018, according to the SEAI, over 500 MW of wind generation was installed which resulted in wind generation accounting for 25.2% of the electricity generated. Wind generation is now the second largest source of electricity generated after natural gas. Although Ireland has had considerable success in increasing the share of renewables in electricity generation, there continues to be a need for further achievement within this sector in order to take full advantage of the country's abundant renewable resources. It is noted under the strategy that to achieve the level of ambition set for 2020, but more importantly at this stage, 2030, Ireland will be dependent on:

- Increased deployment rates of sustainable energy technologies and practices across the entire economy;
- The development of a national training and skills strategy to support growth of the clean energy technology sector;
- Support for changes in business models, nascent clean energy technology supply chains and the addressing of existing market failures;
- Early resolution of planning and regulatory barriers, including continued public engagement, and the development of appropriate market structures – especially for electrification of heat and transport supported with high levels of renewable electricity;
- Significant mobilization of private investment in renewable energy and energy efficiency –additional spend on efficiency is known to achieve multiple benefits including warmer, healthier and more cost effective buildings;

[3] Data centres have high load factors of around 80%. Ech 1MW uses 24 x 365 x 80% = 7GWh. EU targets require that 40% or 3GWh of that should come from renewables. A 1MW wind turbine produces roughly 3GWh/yr.

- The acceleration of innovation and technology adoption, especially in the area of electricity demand response, grid flexibility and storage;
- The exploitation of advances in ICT and national strengths in this field to advance renewables and energy efficiency, particularly in relation to passenger mobility solutions;
- Aggressively adopting the 'avoid, shift and improve' transport energy policy principles – this involves managing mobility demand to avoid trips or a shift to the most efficient modes, plus improving the energy efficiency of vehicles as well as reducing the carbon intensity of fuels;
- Taking in the ethical cost of carbon consideration in all aspects of public and private enterprise planning, involving the enforcement of the polluter pays principle by including the negative external costs associated with emissions such as healthcare or environmental reparation costs;
- An approach to carbon neutrality in the agriculture and land-use sector, including forestry, that does not compromise capacity for sustainable food production; and
- The promotion of an environmentally aware and concerned citizen and community ideology to combat climate change, including recognition of the impact of diet and consumerism on climate change.

According to the Irish Wind Energy Association's Annual Report (March 2020), wind generation accounted for 32.5% of all electricity generated which is the second highest in Europe and the highest in onshore wind. There were 24 new wind farms connected in 2019 with a combined installed capacity of 463 MW making it the second-best year on record for new connections. There is now more than 4,100 MW of installed wind energy capacity in the Republic of Ireland since the end of 2019.

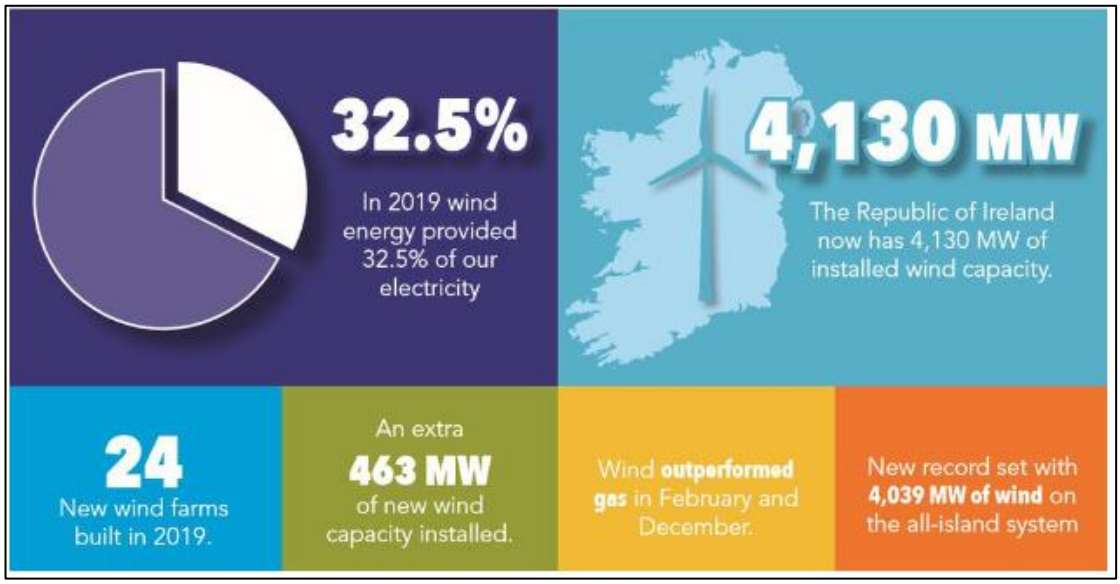

Figure 2-4. IWEA Annual Report (2020)

2.1.2.6 National Policy on Renewable Energy

Ireland's Energy Policy Framework 2007-2020

The 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. Currently, c. 69% of Irish energy requirements are imported, as described in Section 2.2.1 above. Combined with Ireland's peripheral location in Europe, this situation leaves the country vulnerable to supply disruption and imported price volatility, as stated in the White Paper. The primary objectives of the Government's energy policy are security of supply, environmental sustainability and economic competitiveness. The Framework sets out clear actions, targets and timeframes for meeting these interlinked objectives.

Ireland's energy policy priorities are framed in the context of the European Union. As previously discussed, Directive 2009/28/EC on the Promotion of the Use of Energy from Renewable Sources sets a target for Ireland for 16% of energy consumption to come from renewable sources by 2020. The 2007 Government White Paper sets a more ambitious target of 33% for energy consumption from renewable sources by 2020. This target was further increased to 40% by the Minister for Communications, Energy and Natural Resources, in 2008 as part of the Government's strategy to make the "green economy" a core component of its economic recovery plan.

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). In 2017, wind energy accounted for 84% of renewable electricity generation, this represents an average growth rate of 12% between 2010 – 2017 with a record of 532 MW of wind-generation capacity installed in 2017 (SEAI 2019).

The Energy White Paper 2007 concludes that renewable energy will be a critical and growing component of Irish energy supply to 2020, 2030 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."*

Strategy for Renewable Energy 2012-2020

The Department of Communications, Energy and Natural Resources publication, *Strategy for Renewable Energy 2012 – 2020*, outlines the strategic goals which underpin the Government's energy and policy objectives. The Strategy articulates the key actions to be undertaken to support the development of each of the renewable energy sectors to deliver on Ireland's binding 2020 targets under the Renewable Energy Directive. It acknowledges the national importance of developing renewable energy and confirms the Government's commitment to this.

The Strategy sets out 5 no. strategic goals, the first of which is as follows:

> *"Strategic Goal 1 - Progressively more renewable electricity from onshore and offshore wind power for the domestic and export markets."*

The Strategy highlights the economic benefits onshore wind projects can have on the Irish economy:

> *"Further strategic deployment of onshore wind projects will develop a base of indigenous and foreign companies and create employment in the short-term in wind farm construction, possible turbine component manufacturing and servicing, the opportunity to capture international supply chain opportunities and the manufacture of niche onshore renewable energy generating equipment".*

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

On 12th May 2014, the Green Paper on Energy Policy in Ireland was launched which marked the start of a public consultation process on the future of Ireland's energy policy over the medium to long-term. The Department of Communications, Climate Action & Environment acknowledged that energy is an integral part of Ireland's economic and social landscape and that "*a secure, sustainable and competitive energy sector is central to Ireland's ability to attract and retain Foreign Direct Investment and sustain*

Irish enterprise. The three key pillars of energy policy are to focus on security, sustainability and competitiveness".

Following on from an extensive consultation process, a Government White Paper entitled '*Ireland's Transition to a Low Carbon Energy Future 2015-2030*' was published in December 2015 by the Department of Communications, Energy and Natural Resources. 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 interim.

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

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

> *"Onshore wind continues to be the main contributor (18.2% of total generation and 81% of RES-E in 2014). It is a proven technology and Ireland's abundant wind resource means that a wind generator in Ireland generates more electricity than similar installations in other countries. This results in a lower cost of support."*

The grant of permission for the Cleanrath wind farm development will directly contribute to Ireland's on-going progression towards its 2030 and 2050 targets, and the affordability of its energy supply, by increasing the penetration of renewable electricity to the local and wider region.

National Wind Energy Guidelines

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. Specifically, 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 also contain guidelines to ensure consistency of approach throughout the country in the identification of suitable locations for wind energy development.

As each wind project has its own characteristics and defining features, it was acknowledged that it was impossible to write specifications for universal use. As such, it is commonly understood that the 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 and Draft Revised Guidelines were published in December 2019.

As demonstrated in the following chapters, the installation, operation and future decommissioning of the Cleanrath wind farm development (9 no. Nordex N117 turbines with hub heights of 91m, rotor diameters of 117m and overall blade tip heights of 150m) has not resulted and does not result in any

significant effects on shadow flicker, noise, landscape/visual, traffic and transport, ecology, population/human health, water, soils or cultural heritage. The 9 no. turbines and their associated ancillary infrastructure were constructed and will be operated with an appropriate suite of mitigation measures and has not had any significant adverse impact on the environment. The constructed infrastructure obviously has a reduced footprint from that previously considered acceptable by An Bord Pleanála (9 no. turbines in lieu of 11 no. as well as omission of substation, met mast and reduction in grid connection length).

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).

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."*

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. The circular also provided an update on 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.

Commission for Regulation of Utilities: Grid Connection Policy (2018)

The Commission for Regulation of Utilities (CRU) launched a new grid connection policy in March 2018 for renewable and other generators, known as the Enduring Connection Policy (ECP-1), which sought 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 facilitate greater opportunities for advanced projects to connect to the network in addition to the preparing for future, more regular batches for connection. In August 2018, the applicants for new connection capacity under ECP-1 were published. The CRU is expected to launch the second round of grid connection offers known an ECP-2 in the middle of 2020.

While the enduring connection policy regime is currently in place, the Cleanrath wind farm development was accepted for connection to the national grid using EirGrid's "Gate" system which was the previous connection offer process approved by the CRU for connecting renewable generators onto the system. Cleanrath wind farm secured a Gate 3 offer under this system and the connection has been approved by the CRU, through the issuing of Authorisation to Construct Consents and Generating Licenses, with all associated works being carried out to EirGrid/ ESB Networks specifications and requirements.

Draft Revised Wind Energy Development Guidelines (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 and these Draft Guidelines were under public consultation (until 19th February 2020). Following the previous 2013 consultation and subsequent detailed engagement between the relevant Government Departments, a "preferred draft approach" to inform and advance the conclusion of the review of the 2006 guidelines was announced in June 2017 (previously discussed above).

The Draft Revised Guidelines clearly sets out that 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 regard, 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 and spacing;
- 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 grid connection as part of the whole project.

Similar to the 2006 Guidelines, the Draft Revised Guidelines also state that underground grid connections for wind energy projects are considered the most appropriate environmental and/or engineering solution (e.g. default approach), particularly in sensitive landscapes.

The Cleanrath wind farm development was designed and constructed prior to the publishing of these Draft Guidelines. Notwithstanding this, the rEIAR will address each key matter (e.g. noise and shadow flicker standards) in turn within the remainder of the report. As demonstrated in the subsequent chapters, the Cleanrath wind farm development has not (nor will it) result in any likely significant effects on the environment and is in accordance with the principles of proper planning and sustainable development.. In relation to the Shadow Flicker, the Cleanrath wind farm development can satisfy the draft guidelines requirement as currently proposed as this is an operational matter that can be controlled by the SCADA system if required and the overall design (location/layout)of the wind farm is in line with the relevant draft guidelines. In relation to the noise elements of the draft guidelines, it is this section that has given rise to the most scrutiny from industry and acoustic experts who have sought significant amendments and clarifications. While the outcome of the current public engagement process is not yet known, the operational noise parameters can be controlled using the SCADA system, and therefore, the Cleanrath wind farm development can achieve the recommendations of the draft guidelines should they be adopted/finalised during the consideration period of the current substitute consent application. Another significant element of the Draft guidelines relates to the requirement of a 4 times tip height separation distance from third party dwellings. The Cleanrath wind farm development does achieve this separation distance. In this regard the turbines which have a 150m tip height would require a separation distance of 600m from dwellings. There are no dwellings located within 600 metres of any of the turbines within the Cleanrath wind farm development.

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.

As part of the Cleanrath wind farm development, tree felling was required within and around the development footprint to allow the construction of turbine bases, access roads and the other ancillary infrastructure. The details of which are set out in Section 4.3.9.2 of this rEIAR

The tree felling activities required as part of the Cleanrath wind farm development were carried out and completed in accordance with the conditions of tree felling licences granted by the Forest Service.

2.2 Planning Policy Assessment

2.2.1 National Policy

2.2.1.1 National Planning Framework (2018)

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. The sets out five strategic actions:

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

The NPF forms the top tier of the national planning policy structure which establishes the policy context for the Regional Spatial and Economic Strategies and local level development plans. In an effort to move away from developer led development to one informed by the needs and requirements of society, a number of objectives and policies have been put in place in order for the country to grow and develop in a sustainable manner. The NPF notes that the population of Ireland is projected to increase by approximately 1 million people by 2040 which will result in a population of roughly 5.7 million. This population growth will place further demand on both the built and natural environment. In order to strengthen and facilitate more environmentally focused planning at the local level, the NPF states that future planning and development will need to

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

The Framework notes that while the overall quality of the country's environment is good, it is not without challenges. It acknowledges that the manner in which we plan for the potential challenges, e.g. sustaining and increasing renewable energy generation, will be important in how we create a sustainable environment for the future.

> *"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 wastewater, 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."*

Relevant to the Cleanrath wind farm development, the **National Strategic Outcome 8** (*Transition to Sustainable Energy*), notes that in creating Ireland's future energy landscape, new energy systems and transmission grids will be necessary to enable a more distributed energy generation which connects established and emerging energy sources, i.e. renewables, to major sources of demand. Specifically, the NPF notes that reinforcement of the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres is a critical objective of the Framework. Ireland's national energy policy under **Objective 55** aims to 'promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050'. Through this, it is noted that there are three pillars of focus which must be considered:

1. *Sustainability;*
2. *Security of supply;*
3. *Competitiveness.*

The NPF emphasises that the Southern Region will have an important role in promoting a sustainable and renewable energy supply, which is identified as a key future planning and development priority. It notes that,

> "*harnessing the potential of the regions in renewable energy terms across the technology spectrum from wind and solar to biomass, where applicable, wave energy, focusing in particular on the extensive tracts of publicly owned peat extraction areas in order to enable a managed transition of the local economies of such areas in gaining the economic benefits of greener energy*"

The national government recognises that they must reduce greenhouse gas emissions which come from the energy sector by at least 80% by 2050 when compared to 1990 levels while ensuring a secure supply of energy, which the operation of the Cleanrath wind farm development will contribute towards. In the context of Ireland's binding climate change and renewable energy objectives, the NPF sets out the key need for the long-term sustainability of the environment. The NPF aims to ensure that decisions 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."*

It is described within the NPF that the Government will address pressing environmental and climate challenges through the following overarching aims listed under '*Resource Efficiency and Transition to a Low Carbon Economy*':

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

In order to meet legally binding targets agreed at EU level (as discussed above), 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 NPF notes that the Government will aim to '*integrate climate considerations into statutory plans and guidelines in order to reduce vulnerability to negative effects and avoid inappropriate forms of development in vulnerable areas'*. Accordingly, it is envisioned that the national strategy will be supported, implemented and translated through the planning hierarchy by the local development plans and regional strategies.

Key Sustainability Elements of National Planning Framework

A critical element underpinning the NPF is the need to facilitate Ireland's transition toward a low carbon, climate-resilient society. In this regard, one of the key overarching objectives of the NPF is to realise an Ireland which has a *secure and sustainable renewable energy supply* and has the ability to diversify and adapt to new energy technologies. Against this backdrop, the NPF 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, such as the region of West Cork, have an important role to play in securing a sustainable renewable energy supply for the country, acknowledging that *"rural areas have significantly contributed to the energy needs of the country and continue to do so".* In this regard, the NPF states:

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

The NPF sets out a number of National Policy Objectives under this subject (Section 9) with a key focus on resource efficiency and enabling actions required to transition towards a low carbon economy. In relation to climate action and planning, the NPF reiterates the commitment of the Government 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, and progressed through the National Mitigation Plan and the National Climate Change Adaptation Framework. 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.

As indicated above, the NPF acknowledges that increased generation and deployment of renewable energy within the country is a critical element in progressing the decarbonisation of Ireland's economy. Specifically, it is noted that the *"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 for reducing our reliance on fossil fuels"*. This position is cemented in National Policy Objective 55 of the NPF which seeks to:

"Promote renewable energy generation at appropriate locations within the built and natural environment to meet objectives towards a low carbon economy by 2050"

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 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.

In achieving this desired National Strategic Outcome of a transition to sustainable energy, the NPF re-emphasises the following national policy target of delivering *"40% of our electricity needs from renewable sources by 2020 with a strategic aim of in excess of 50% by 2030 and more by 2040 and beyond using wind, wave, solar, biomass and hydro sources".*

2.2.1.2 Draft Renewable Electricity Policy and Development Framework (2016)

The Renewable Electricity Policy and Development Framework has been formulated to ensure Ireland meets its future needs for renewable electricity in a sustainable manner compatible with environmental and cultural heritage, landscape and amenity considerations.

The Framework will contribute toward meeting Ireland's future energy needs, particularly up to 2030 and beyond, as informed by national and European policy, and will be reviewed at five-yearly intervals. The Policy and Development Framework will be primarily for the guidance of An Bord Pleanála, planning authorities, other statutory authorities, the general public and persons seeking development consent in relation to large scale projects for the generation of renewable electricity on land. It will set out policy in respect of environmental considerations, community engagement and the potential, future

export of renewable electricity. It will seek to broadly identify suitable areas in the State, where large-scale renewable electricity projects can be developed in a sustainable manner.

The existing system for planning permission applications to local authorities or An Bord Pleanála will remain unchanged in respect of renewable electricity projects. These will still require planning permission including environmental impact assessment, where appropriate. It is proposed that the Policy and Development Framework will be focused on providing for renewable electricity projects of large scale. It is considered that a threshold of 50 MW and upwards would be appropriate, having regard to the provisions of the strategic infrastructure development legislation.

In July 2018, tenders for the provision of consultancy services for Strategic Environmental Assessment (SEA), Appropriate Assessment (AA) and related services including spatial planning, landscape and visual assessment in relation to the framework were requested. The tender documentation circulated has indicated that the updated REPDF will have the following objectives:

- To maximise the sustainable use of renewable electricity resources in order to develop progressively more renewable electricity for the domestic and potentially, for future export markets;
- To assist in the achievement of targets for renewable energy, enhance security of supply and foster economic growth and employment opportunities. It will identify appropriate parts of the country for large renewable electricity projects and will assess the environmental impact of renewable electricity projects at various scales at a national level;
- To identify strategic areas on land for large scale renewable energy generation and this analysis will include a spatial component; and
- In addition, the amended scope will include renewable electricity projects below this threshold (including wind and solar PV) at a national level.

The updated scope will also include an assessment of available grid capacity in relation to the location of large and medium-scale renewable electricity generation plants.

2.2.2 Regional Policy

The strategic objectives of the NPF are implemented at a regional level by the Southern Regional Assembly's Regional Spatial and Economic Strategy (RSES). The Cleanrath wind farm development is located within the administrative boundaries of Cork County Council and Kerry County Council, which both in part comprise the Southern Regional Assembly (SRA), as of January 2015.

The SRA covers 9 no. counties, including Carlow, Tipperary, Waterford, Wexford, Kilkenny, Cork, Kerry, Clare and Limerick.

2.2.2.1 Southern Regional Assembly Regional Spatial & Economic Strategy (2020)

The Southern Regional Assembly has a recognised leadership role in setting out regional policies and coordinating initiatives which support the delivery and implementation of the NPF. The primary vehicle for this is the preparation and implementation of the Regional Spatial and Economic Strategy (RSES). One of the principal functions of the SRA is to deliver the RSES which considers both spatial and economic factors within the regional planning framework.

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

- Nurture all our places to realise their full potential;
- Protect, and enhance our environment;
- Work to achieve economic prosperity and improved quality of life for all our citizens;
- Successfully combat climate change;
- Achieve economic prosperity and improved quality of life for all citizens;
- Accommodate expanded growth and development in suitable locations; and
- Make the Southern Region one of Europe's most creative, innovative, greenest and liveable regions.

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

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

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

- **RPO 87 (Low Carbon Energy Future)**: The RSES is committed to the implementation of the Government's policy under Ireland's Transition to a Low Carbon Energy Future 2015-30 and Climate Action Plan 2019. It is an objective to promote change across business, public and residential sectors to achieve reduced GHG emissions in accordance with current and future national targets, improve energy efficiency and increase the use of renewable energy sources across the key sectors of electricity supply, heating, transport and agriculture.
- **RPO 95 (Sustainable Renewable Energy Generation)**: It is an objective to support implementation of the National Renewable Energy Action Plan (NREAP), and the Offshore Renewable Energy Plan and the implementation of mitigation measures outlined in their respective SEA and AA and leverage the Region as a leader and innovator in sustainable renewable energy generation.
- **RPO 96 (Integrating Renewable Energy Sources)**: It is an objective to support the sustainable development, maintenance and upgrading of electricity and gas network grid infrastructure to integrate a renewable energy sources and ensure our national and regional energy system remains safe, secure and ready to meet increased demand as the regional economy grows.
- **RPO 99 (Renewable Wind Energy)**: It is an objective to support the sustainable development of renewable wind energy (on shore and offshore) at appropriate locations and related grid infrastructure in the Region in compliance with national Wind Energy Guidelines.
- **RPO 100 (Indigenous Renewable Energy Production and Grid Injection)**: It is an objective to support the integration of indigenous renewable energy production and grid injection.

An important element within the Southern RSES is the introduction of a regional scale approach to identifying and capitalising on renewable energy opportunities.

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

This policy instrument, if implemented correctly, could assist in facilitating a more consistent approach to renewable energy / wind strategies at the county level, and furthermore, could identify opportunities for large cross-county renewable schemes via stakeholder led collaboration. At present, the RSES notes that the Region has more renewable energy generation than demand which indicates a strategic role for the region's energy assets in national energy generation and transmission. With projected increases in population and economic growth, the demand for energy is set to increase in the coming years. In the context of transitioning to a more energy efficient society and increasing renewable sources of energy, the RSES notes that there is a need to set a policy approach which address meeting national targets for renewable electricity generation, climate change and security of energy supplies, both regionally and nationally.

The sustainable growth of the Southern Region requires the provision of services and infrastructure central to the RSES strategy in a plan led manner to ensure the sustainable management of environmental resources. As such, existing regional infrastructure represents major and on-going capital and infrastructural investment in strategic national assets and is considered by the RSES as essential for the continued provision of a secure and reliable electricity supply. The sustainable development of the Region, however, must also be balanced with consideration to natural heritage and biodiversity, particularly landscape. **RPO 129** notes that it is an objective of the Regional Authority to develop a *Regional Landscape Strategy* in order to facilitate landscape protection, management and change in the region.

The RSES sets out a number of infrastructural RPOs, relevant to the Cleanrath wind farm development, which indicate that the Region is open to, and ready to invest in, renewable energy generation.

- **RPO 219 (New Energy Infrastructure)**: It is an objective to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers (subject to appropriate environmental assessment and the planning process) to ensure the energy needs of future population and economic expansion within designated growth areas and across the Region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs.
- **RPO 221 (Renewable Energy Generation and Transmission Network)**
  - A) Local Authority City and County Development Plans shall support the sustainable development of renewable energy generation and demand centres such as data centres which can be serviced with a renewable energy source (subject to appropriate environmental assessment and the planning process) to spatially suitable locations to ensure efficient use of the existing transmission network;
- **RPO 222 (Electricity Infrastructure)**: It is an objective to support the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this plan under EirGrid's (2017) Grid Development Strategy (subject to appropriate environmental assessment and the planning process) to serve the existing and future needs of the Region and strengthen all-island energy infrastructure and interconnection capacity.

The Southern Regional Assembly strongly supports renewable wind energy development such as the Cleanrath wind farm development in order to ensure a '*safe, secure and reliable supply of electricity*' for the region. The successful operation of Cleanrath wind farm will contribute to the successful transition to a low carbon economy.

2.2.3 Local Policy Considerations – County Development Plans

The Cleanrath wind farm development is located within the administrative boundaries of both Cork County Council and Kerry County Council. Specifically, a planning application was lodged by the applicant to Kerry County Council for a c. 2km section of underground cabling and associated infrastructure in the townland of Grousemount, Kilgarvan, Co. Kerry to connect the subject wind farm to the 110 kV Coomataggart Substation. Kerry County Council granted conditional permission for the development on the 7th of July 2016 and was not challenged or appealed, and therefore, this section of the national grid connection is not subject to this application for substitute consent. Notwithstanding this, however, the analysis of both the Cork County Development Plan 2014 (as extended) and the Kerry County Development Plan 2015-2021 (as varied) is considered pertinent in demonstrating the appropriateness of the Cleanrath wind farm development within both jurisdictions. The analysis of both development plans is set out below.

2.2.3.1 Cork County Development Plan 2014 (as varied)

The Cork County Development Plan 2014 (as varied), hereafter referred to as the CCDP, sets out an overall strategy for the proper planning and sustainable development of Cork County over a 6 year period.

Cork County Council has commenced the preparation of a new County Development Plan (2022-2028), this process remains in the pre-draft stage at time of writing, with various background documents having been released to inform the public discourse. Energy is dealt within in background document no. 9 published by the Council, in which the importance of on-shore wind energy is acknowledged, as is the valuable contribution wind farms are making towards decarbonising the economy. The published background document also notes that at this stage it is not envisaged that any significant changes are required to the county's wind energy policy.

The CCDP sets out a strategic vision and corresponding main aims underpinned by the core principles of sustainability, social inclusion, quality of design and climate change adaptation. The CCDP adopts the principle of sustainability by promoting and encouraging the integration of economic, environmental, social and cultural issues into policies and objectives set forth below.

With regard to the above, the Strategic Vision of the CCDP is as follows:

> *"Through the application of the planning principles set out in this document, to provide for the development of County Cork as an attractive, competitive and sustainable place to live, visit and do business, where the quality of its economy, natural and built environment, culture and the strength and viability of its communities are to the highest standards."*

It is noted that all of the detailed policies and objectives of the CCDP are intended to contribute to the delivery of a number of key main aims for the county as a whole. The main aims considered relevant to the Project are listed below:

- C) **Sustainable and balanced economic investment**, in jobs and services, to sustain the future population of the County together with wise management of the County's environmental, heritage and cultural assets; and
- D) **An effective physical and community** infrastructure supporting living, economic recovery, enterprise and social integration

As indicated above, the CCDP has been designed to ensure that sufficient energy and related infrastructure is available to meet the existing and future needs of County Cork, recognising the importance of exploiting the renewable energy resources of the County in order to reduce dependence on fossil fuels, improve security of supply, reduce greenhouse gas emissions helping to address the

climate change challenge and creating environmental benefits while taking full advantage of the opportunities that will arise from the emerging renewable energy sector in terms of sustainable jobs and making a positive contribution towards the move to a competitive, low carbon Green Economy and enhancing national completeness.

The CDP acknowledges the key strategic role Cork plays in energy provision in Ireland and recognises that energy generation and energy related activity in Cork is likely to change significantly over the coming years as the move to a low carbon economy increases. The CDP further emphasises that the development of renewable energy sources is central to overall energy policy in Ireland and a key aim of the Plan is to support the sustainable development of renewable energy sources.

- **ED 1-1**: Ensure that through sustainable development County Cork fulfils its optimum role in contributing to the diversity and security of energy supply and to harness the potential of the county to assist in meeting renewable energy targets.

Through the delivery of a low carbon energy framework, the CDP notes that the County Council aims to attract inward investment to the County and the wider South - West Region. As such, the County Cork is well positioned to become self-sufficient in renewable energy. The CCDP establishes a precedence for the Cleanrath wind farm development in the context of Cork County Council's vision of developing a sustainable, secure and resilient energy supply through a diverse renewable energy portfolio.

On-shore Wind Strategy

The CCDP notes that, at the time of publishing the Plan, County Cork had the largest wind energy capacity in the Country with 283 MW from 20 no. wind farms, which is approximately 13.8% of Ireland's overall wind energy production. It is acknowledged by the CCDP that there is considerable potential for additional wind energy capacity within the County. The Plan identifies, in broad strategic terms, three categories of 'Wind Deployment Area' for large scale commercial wind energy developments. This approach facilitates commercial wind energy development in approximately 55% of Cork County with the remaining 45% unlikely to be suitable. These categories are as follows:

- **'Acceptable in Principle'**: These areas (River Ilen basin north of Skibbereen and an area south of Macroom) are in optimal locations for wind farm development without significant environmental impacts. They have viable wind speeds (>7.5m/s) and good proximity and access to the grid. These areas exclude urban areas and town green belts, avoid Natura 2000 Sites, high value landscapes and Natural Heritage Areas.
- **'Open to Consideration'**: This area comprises almost 50% of the County area. Within these areas there are locations that may have the potential for wind farm developments but there are also some environmental issues to be considered. This area has variable wind speeds and some access to the grid.
- **'Normally Discouraged'**: These areas (coastal areas, some areas in North Cork, Cork Harbour and the Lee Valley) are normally not suitable for commercial wind farm developments due to their overall sensitivity arising from ecological, landscape, amenity, recreational and settlement considerations.

The Cleanrath wind farm development is located in an area designated as '**Open to Consideration**' for wind energy development in the CCDP. The Plan states that this category has been applied to areas with some capacity to absorb wind development, but which are sensitive enough to require a site-by-site appraisal to ascertain the suitability of the area for development.

- **ED 3-2**: On-shore wind energy projects should focus on areas considered 'Acceptable in Principle' and Areas 'Open to Consideration' and generally avoid "Normally Discouraged" areas in this Plan.
- **ED 3-3**: Support a plan led approach to wind energy development in County Cork and identify areas for wind energy development. The aim in identifying these areas is to

ensure that there are no significant environmental constraints, which could be foreseen to arise in advance of the planning process.

- **ED 3-5**: Commercial wind energy development is '**Open to Consideration**' in these areas where proposals can avoid adverse impacts on:
  - Residential amenity particularly in respect of noise, shadow flicker and visual impact;
  - Urban areas and Metropolitan/Town Green Belts;
  - Natura 2000 Sites (SPA and SAC), Natural Heritage Areas (NHA's) or adjoining areas affecting their integrity;
  - Architectural and archaeological heritage; and
  - Visual quality of the landscape and the degree to which impacts are highly visible over wider areas.
- **ED 6-1** (Electricity Network): Facilitate where practical and feasible infrastructure connections to wind farms and other renewable energy sources subject to normal proper planning considerations.

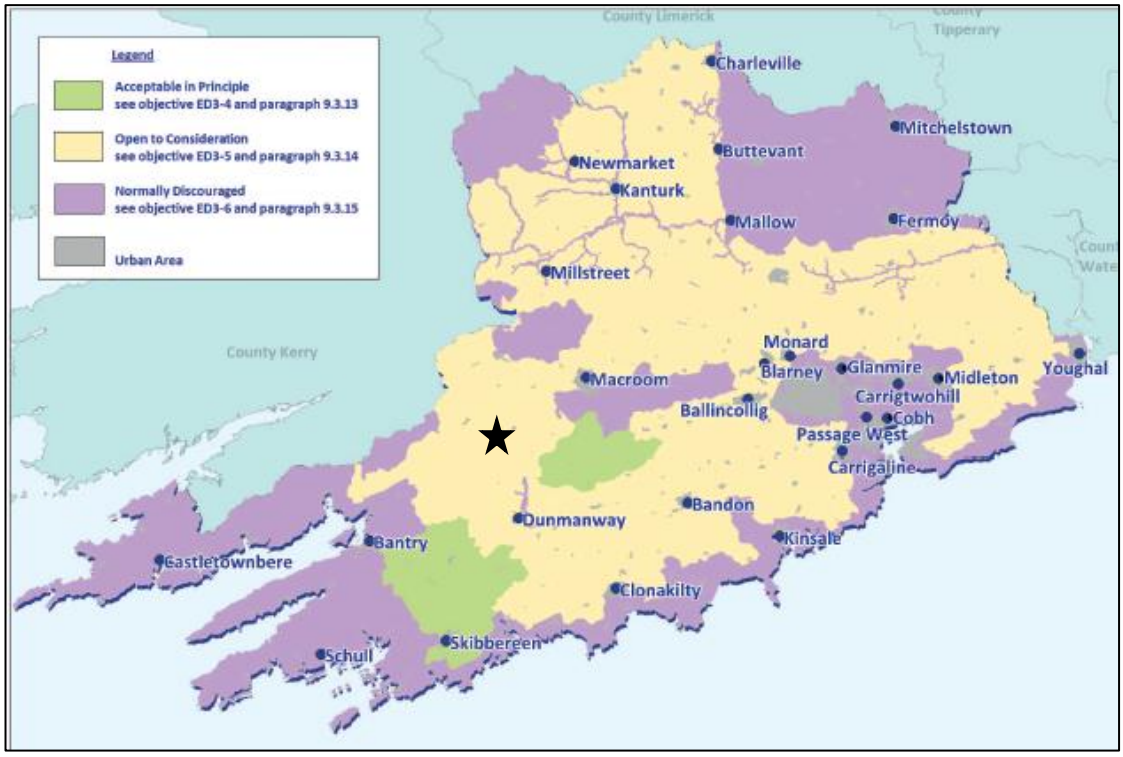

Figure 2-5. Cork Wind Energy Strategy Map
Note 1. 'Black Star' is indicative location of the Cleanrath wind farm development wind turbines
Source: Cork County Council

The overall acceptability of the Cleanrath wind farm development in the context of the CCDP was acknowledged in principal by both the Planning Authority and the Board, as indicated by the Planning Inspector's assessment of the previous application (PL04.246742) in which the following is stated:

> *"Within the Cork County Development Plan 2014-2020, there are general objectives which favour development of electricity from wind energy. The development is located within an area 'Open to Consideration', where the proposed development can avoid adverse impacts on residential amenity and nature conservation, whilst not impacting negatively on the landscape.*
>
> *Wind farms in Ireland are almost all located in rural areas. The locations of such a development type is not necessarily incompatible with Development Plan policies to protect rural communities, recreational facilities, business development or protection of the natural environment"*

Landscape Strategy

The key role of the Landscape Strategy is to assist in the achievement of sustainable development, by promoting an approach to landscape planning and management which links objectives and recommendations for landscape character to existing planning policies. The CCDP emphasises the significance of the County's landscape as a key green infrastructure asset due to its intrinsic value as places of natural beauty in addition to its importance with regard to recreation, tourism and other uses. The principal policy within the CCDP regarding Landscape is **GI 6-1**, as reproduced below:

a) *Protect the visual and scenic amenities of County Cork's built and natural environment.*
b) *Landscape issues will be an important factor in all land use proposals, ensuring that a pro-active view of development is undertaken while maintaining respect for the environment and heritage generally in line with the principle of sustainability.*
c) *Ensure that new development meets high standards of siting and design.*
d) *Protect skylines and ridgelines from development.*
e) *Discourage proposals necessitating the removal of extensive amounts of trees, hedgerows and historic walls or other distinctive boundary treatments*

It is acknowledged within the Plan that the future development of the County will need to consider the challenge of landscape management and how to ensure that change is positive in its effects. Successfully meeting this challenge is considered a key element in achieving sustainable development. Landscape Character Assessments (LCA), as set out within the CCDP, is designed to assist in achieving this goal.

The CCDP designates Landscape Character Types which have a high or very high landscape value, and high or very high landscape sensitivity, and which are of county or national importance, as High Value Landscapes (HVL). These are areas where considerable care is needed to successfully locate large scale developments, and such developments should generally be supported by as assessment including a visual impact assessment. There are no areas of High Value Landscape within or immediately adjacent to the subject site; in this regard, there are 2 no. areas of HVL within a 10km radius of the Cleanrath wind farm development, c. 8.56km west around the Kealkil area and another area c. 6.8 kilometres east at Gearagh.

The subject site is located in an upland area and it is relatively remote. The site straddles two Landscape Character Types: the northern part of the site is located within Landscape Character Type 12(a) *Rolling Marginal and Forested Middleground* while the southern portion of the site lies in the LCT 15(a) *Ridged and Peaked Upland*. These landscape types are summarised below:

- Type 12 (a) Rolling Marginal and Forested Middleground
  - Landscape Value: High
  - Landscape Sensitivity: High
  - Landscape Importance: Local

- Type 15 (a) Ridged and Peaked Upland
  - Landscape Value: High
  - Landscape Sensitivity: High
  - Landscape Importance: Local

High sensitivity landscapes are defined by the CCDP as vulnerable landscapes with the ability to accommodate limited development pressure. In this rank, landscape quality is at a high level which indicates that landscape elements are highly sensitive to certain types of change. If pressure for development exceeds the landscape's limitations, the character of the landscape may change.

The CCDP also notes that it is important to protect the character and quality of particular stretches of scenic routes that have special views and prospect, particularly those associated with High Value Landscapes. As such, development should not hinder or obstruct these views and prospects and should be designed and located to minimise the impact.

- **GI 7-1**(General Views and Prospects): Preserve the character of all important views and prospects, particularly sea views, river or lake views, views of unspoilt mountains, upland or coastal landscapes, views of historical or cultural significance (including buildings and townscapes) and views of natural beauty as recognized in the Draft Landscape Strategy.
- **GI 7-2** (Scenic Routes): Protect the character of those views and prospects obtainable from scenic routes and in particular stretches of scenic routes that have very special views and prospects identified in this plan.

There are 16 no. scenic routes located within a 20km radius of the Cleanrath wind farm development; however, the closest three routes are Scenic Route 26, Scenic Route 34 and Scenic Route 35 which are 1.74km, 2.5km and 2.93km, respectively.

- **Scenic Route 26**: Local Road between Lissacresig and the Mouth of the Glen, with views of rugged landscape & valleys. This route is located approximately 1.74 kilometres northwest of the Cleanrath wind farm turbines, at its nearest point;
- **Scenic Route 34:** The R584 Regional Road between Inchigeela & Ballingeary through the pass of Keimaneigh. Views are primarily of Lough Allua and the Lee River Valley, Shehy Mountains, hills and the surrounding rugged landscape This route is located approximately 2.5 kilometres north of the Study Area, at its nearest point; and
- **Scenic Route 35**: Local Road Between Dromcarra and Rossmore. Views of rolling hills, open countryside, valley, the River Lee & distant mountain views. This route is located approximately 2.93 kilometres north east of the study area, at its nearest point.

In relation to landscape the Planning Inspector's previous assessment of potential impacts on visual amenity and scenic routes (set out in the Inspector's recommendation under PL04.246742) found:

> *"I would not agree with the contention of* [third party] *appellants that there will be an over-concentration of wind turbines in this area. The density of turbines to the northwest, across the county boundary in Kerry, is far higher.....*
>
> *....The separation distances and the intermittent nature of the views will have the effect of lessening the impact of the development. The impact on these Scenic Routes will not be significant. The wind farm will be visible from limited lengths of other Scenic Routes located at greater distances from the wind farm site. The separation from these latter would result in no impact from the wind farm on their amenity value."*

Chapter 13 of this rEIAR provides a complete landscape and visual impact analysis in the context of the Cleanrath wind farm development.

Blarney-Macroom Municipal District Local Area Plan (2017)

The Cleanrath wind farm development is situated within the functional area of the Blarney – Macroom Municipal District. The Local Area Plan (LAP) has been developed in line with the CCDP and sets out the detailed planning strategy and land use zoning, as appropriate, for the towns and villages within its functional area, based on the national, regional and county-wide requirements. of the Municipal District. The LAP has established a settlement network of two main settlements (Blarney and Macroom), which is augmented by 7 no. key villages, 15 no. villages, 25 no. village nuclei and 7 no. other locations, as set out in Figure 7 below. The closest of these settlements to the Cleanrath wind farm development is Reananerree (defined as Village Nuclei), c.1.5km to the north of the development. Village Nuclei are settlements where a limited range of services is provided, supplying a very local need. The vision for Reananerree is to consolidate its role as a provider of local services and to allow some small-scale development in tandem with the provision of appropriate infrastructure.

Inchigeelagh is the closest 'Village' to the development, c. 2.5km to the south of the development. The vision for Inchigeelagh is to,

"protect the viability of existing services by promoting small scale development in tandem with the provision of infrastructural services, to encourage high quality amenities and facilities and the development of the tourism and leisure economy"

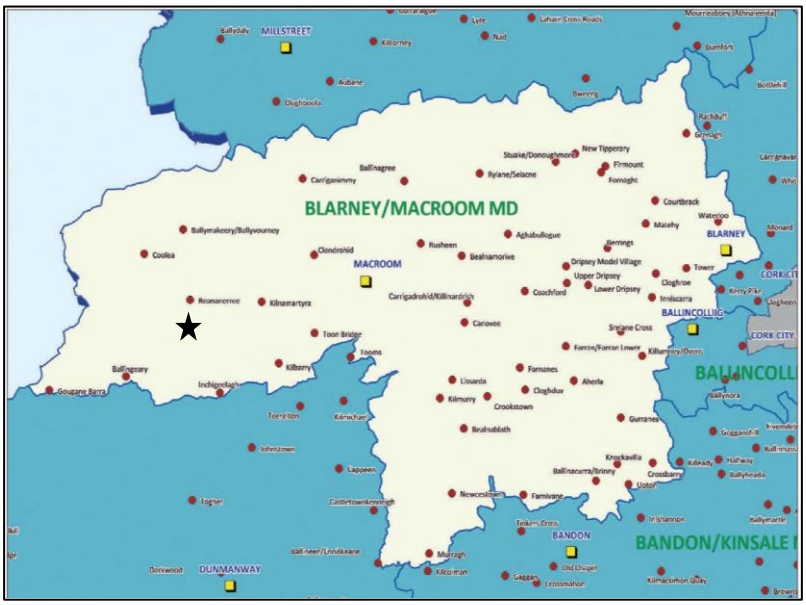

Figure 2-6. Macroom Electoral Area LAP 2015 settlement network
Note: 'Black Star' is indicative location of Cleanrath wind farm development wind turbines
Source: Cork County Council

In application, the LAP is primarily a document which provides greater detail in relation to the settlement hierarchy and zoning policies outlined in the CCDP. The Cleanrath wind farm development, which constitutes the provision of a renewable energy development within a rural area, does not conflict with the provisions of the LAP nor to the specific objectives identified for individual settlements, including Reananerree and Inchigeelagh. The subject development will, however, assist in ensuring that critical energy infrastructure is delivered and that the District is acknowledged as an important a centre of renewable energy production.

2.2.3.2 Kerry County Development Plan 2015 – 2021 (as varied)

As discussed above, a c. 2km section of underground cabling and associated infrastructure in the townland of Grousemount, Kilgarvan, Co. Kerry required to connect the subject wind farm to the 110 kV Coomataggart Substation was granted by Kerry County Council in July 2016. Although this section of the national grid connection is not subject to this substitute consent application, as it enjoys the benefit of planning permission, it is an element of the project which is considered as part of the Cleanrath wind farm development for the purposes of this rEIAR and accordingly it is pertinent to consider the provisions of the Kerry County Development Plan 2015-2021..

The Kerry County Development Plan 2015-2021 (referred hereafter KCDP) was adopted on the 16th February 2015.. The KCDP sets out the following key objectives in relation to renewable energy relevant to the Cleanrath wind farm development.

- **EP-1:** Support and facilitate the sustainable provision of a reliable energy supply in the County, with emphasis on increasing energy supplies derived from renewable resources whilst seeking to protect and maintain biodiversity, archaeological and built heritage, the landscape and residential amenity.
- **EP-3:** Facilitate sustainable energy infrastructure provision, so as to provide for the further physical and economic development of the County.
- **EP-7:** Facilitate the sustainable development of additional electricity generation capacity throughout the region/county and to support the sustainable expansion of the network.

National grid expansion is important in terms of ensuring adequacy of regional connectivity as well as facilitating the development and connectivity of sustainable renewable energy resources.

In the context of the above objectives, the KCDP acknowledges that the renewable energy sector is expanding rapidly and is a growing source of employment and investment. To facilitate the sustainable growth of renewable energies, Kerry County Council prepared and adopted a Renewable Energy Strategy in 2012. As per objective EP-11, the KCDP states the following in relation to the Renewable Energy Strategy (RES):

> *"This strategy sets out the development criteria, development management standards and objectives for the development of renewable energy in the County and will be used in the assessment of all planning applications for such development."*

The RES recognises wind energy as the most suitable form of renewable energy to meet national targets for the consumption of electricity and continues to support the development of Wind Energy. In doing so, it identifies appropriate locations for the development of wind energy based on environmental, technical, landscape and economic considerations enabling developers to identify appropriate sites for wind energy development. The following is a key objective in the RES is of particular relevance to the Cleanrath wind farm development:

- **NR 7-27 - Powerlines -** Ensure that in sensitive landscapes powerlines connecting windfarms to the national grid will be required to be laid underground, as considered appropriate by the Planning Authority, insofar as such infrastructure will not significantly affect European sites and is in compliance with the objectives of this plan and relevant legislation.

The RES's lists strategic objectives for the development of the renewable energy sector which include the following:

- **NR 7-21**: To maximise the development of all renewable energies at appropriate locations in a manner consistent with the proper planning and sustainable development of the county. This will include requirements and considerations in relation to landscape; cultural heritage; Natura 2000 sites and the Habitats & Birds Directive; the objectives of the Water Framework Directive; Flood Directive; Sustainable Forestry Management; and Best Practices in the production of energy crops
- **NR 7-24**: To secure the maximum potential for the generation of electricity from wind energy resources that is consistent with proper planning and sustainable development of the county. This will include requirements and considerations in relation to: landscape; cultural heritage; Natura 2000 sites and the Habitats & Birds Directive; the objectives of the Water Framework Directive; Flood Directive; electricity infrastructure; settlement patterns; and wind energy potential.

The above provisions regarding electricity transmission has also been brought into the KCDP through objectives EP-4, EP-7 and EP-8 which states that it is an objective of the Council to:

- **EP-4**: Support and facilitate the sustainable development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the County
- **EP**-7: To facilitate the sustainable development of additional electricity generation capacity throughout the region/county and to support the sustainable expansion of the network. National grid expansion is important in terms of ensuring adequacy of regional connectivity as well as facilitating the development and connectivity of sustainable renewable energy resources
- **EP-8:** Ensure that the siting of electricity power lines is managed in terms of the physical and visual impact of these lines on both the natural and built environment, the conservation value of Natura 2000 sites and especially in sensitive landscape areas. When

considering the siting of powerlines in these areas the main technical alternatives considered should be set out, with particular emphasis on the undergrounding of lines, and the identification of alternative routes at appropriate locations. It should be demonstrated that the development will not have significant, permanent, adverse effects on the environment including sensitive landscape areas and the ecological integrity of Natura 2000 sites."

The grid connection cable route lies within a wind deployment zone designated as being 'Open to Consideration' for wind development under the RES, which is described as follows,

> *"Site searches within these areas will identify sites with wind energy capacity and the environmental and infrastructural capacity to support wind development. They differ from Strategic Areas in that there are fewer suitable sites. It is recommended that during the site search process, developers consult with the planning authority. Again, the capacity of these areas has limits and the cumulative impact of wind development in these areas will be monitored".*

A section of the grid connection cable route is also located within an area zoned *'Rural Secondary Special Amenity'*, which is covered by Section 3.3.2.2 of the KCDP. Areas of Rural Secondary Special Amenity constitute sensitive landscapes which can accommodate a limited level of development and is dependent on the degree to which development can be integrated into the landscape. As the grid connection cable route is installed as an underground cable under existing public tracks/roadways and along permitted wind farm roads, there will no amenity impacts arising from this development to this designated area of amenity.

A section (800m in length) of the grid connection cable route coincides with a Public Right of Way (ROW-50 – Track from the L11187 in Grousemount to the County Bounds) as designated in the KCDP. Relevant objectives contained within the Plan in this regard include **SC-50** which seeks to *"ensure the preservation of Public Rights of Way which give access to seashore, mountain, lakeshore, riverbank and other place of natural beauty or recreational utility"*, and **SC-52** which seeks to *"ensure that development does not impinge on public walking routes or Public Rights of Way"*. The construction of the underground grid connection cable did not interfere with this KCDP objective.

The Planning Report issued by Kerry County Council in association with Pl Ref. 15/1164 confirmed that potential impacts resulting from the development would not be significant:

> *"The proposed project is a small-scale development consistent in character with existing development in the area...A number of environmentally sensitive sites are located in the wider area, including Natura 2000 sites, wetlands designated for landscape and archaeological purposes and mountain/forest areas. It is considered that these are unlikely to be significantly affected by way of a proposal of this nature at this location.*
>
> *Having regard to the above and in particular to the nature, scale and location of the proposed project, it is considered that the proposed works to be carried out within the Co. Kerry are unlikely to have a negative impact on the environment."*

2.2.4 Planning Conclusions

As demonstrated by the strategic policies and objectives set out within European, national, regional and local development plans, continued investment within and maintenance of Ireland's renewable energy sector is a key prerequisite in achieving Ireland's 2030 renewable energy target and subsequent net zero carbon energy system by 2050. This is particularly relevant in the context of County Cork's vision of developing a sustainable, secure and resilient energy supply through a diverse renewable energy portfolio.

The Cleanrath wind farm development is considered consistent with the overarching planning framework set out in the above European, national, regional and local polices and plans. The rational for this conclusion is based on the following:

European

- Ireland will likely miss the target set for the period 2013 to 2020 for renewables by about 3% and for cumulative emissions by a little under 5%. Furthermore, EPA's Greenhouse Gas Emissions 2018-2040 projections indicate that Ireland faces significant challenges in meeting EU 2030 reduction targets in the non-ETS sector and national 2050 reduction targets, particularly in electricity generation. The provision and operation of the Cleanrath wind farm development will allow Ireland to continue to progress towards future national and EU targets.

National

- The Irish Government recognises that there must be a reduction of greenhouse gas emissions from the energy sector by at least 80% by 2050 when compared to 1990 levels while ensuring a secure supply of energy. The development of onshore renewable energy, e.g. the Cleanrath wind farm development, is critical to Ireland's transition to a '*Low Carbon Economy*'.
- As demonstrated in the subsequent chapters of this document, the construction of the Cleanrath wind farm development and its future operation and decommissioning has not, and will not, result in any likely significant effects on relevant environmental media.

Regional

- The Southern Region is recognised as having substantial renewable energy resource potential which can make significant contributions, through wind energy, to the transition towards a more energy efficient society and increasing renewable sources of energy. The Cleanrath wind farm development will contribute to both national renewable energy generation targets and regional goals regarding energy self-sufficiency.

Local

- Cork County Council recognises the importance of exploiting the inherent renewable energy resources of the County in order to reduce dependence on fossil fuels, improve security of supply, reduce greenhouse gas emissions helping to address the climate change challenge and creating environmental benefits while taking full advantage of the opportunities of the same. The Cleanrath wind farm development is supportive of these objectives and will directly contribute to the achievement of a sustainable, secure and resilient energy supply through a diverse renewable energy portfolio.
- The overall acceptability of the Cleanrath wind farm development in the context of the planning policies and landscape / visual amenity objectives, as set out within the CCDP, have been previously acknowledged in principal by both Cork County Council and the Board.
- The Cleanrath wind farm development, which constitutes the provision of a renewable energy development within a rural area, does not conflict with the provisions of the Blarney – Macroom Municipal District Local Area Plan nor to the specific objectives identified for proximate individual settlements.
- The underground cable connection within Co. Kerry facilitates the Cleanrath wind farm development and provides a means of transferring energy to the national grid derived from renewable means for societal gain. Although this section of the national grid connection does not require substitute consent as it enjoys the benefit of full planning

permission, its overall acceptability, as evident by its grant of permission from Kerry County Council, is supportive of the Cleanrath wind farm development and its wider benefits to the region.

2.3 Planning History

This section of the rEIAR sets out the relevant planning history of the Cleanrath wind farm development, planning applications in the vicinity of the site and other wind energy applications within the wider area.

2.3.1 The Cleanrath Wind Farm Development

Cleanrath Windfarm Ltd. lodged an application under Pl Ref. 11/5245 to Cork County Council (the Planning Authority) for the construction of 11 no. wind turbines with a maximum ground to top blade tip height of up to 126m with ancillary structures, 1 no. permanent 85 meter meteorological mast, 1 no. substation compound with control house, internal road network and associated drainage features, 1 no. wind turbine delivery entrance, 1 no. light vehicle access entrance, 2 no. borrow pits, underground cabling, temporary construction site compound and associated works at the townlands of Cleanrath South, Cleanrath North, Derrineanig and Macroom, Co. Cork on the 9th of June 2011. Subsequent to a Request for Further Information (RFI), the Planning Authority decided to refuse a grant of permission on the basis of 3 no. reasons.

The applicant lodged a 1st Party Appeal (PL04 .240801) following the Planning Authority's decision on the 7th of May 2012 to An Bord Pleanála. The Planning Inspector in their assessment of that project concluded that,

> *"It is reasonable to consider the potential for the site with regards suitability for the proposed development of a wind energy project in terms of the criteria stipulated in objective INF 7-4 of the Plan which deals specifically with Wind Energy Projects, and in particular part (c) of same. In this regard, I am satisfied that, subject to the normal planning criteria identified, in principle, it can be considered that the subject proposed site is suitable for the proposed development, and as such, a grant of planning permission would not, in principle, constitute a material contravention of the Development Plan."*

The Planning Inspector recommended that permission be granted for the development subject to the omission of a number of turbines (No. 3, 4, 6 and 7) in the interests of visual and residential amenity. The Board generally upheld the Inspector's recommendation in granting permission, however, it did not agree that certain turbines should be omitted. In this regard, the Board considered that the separation distances between turbines and dwellings were in accordance with national guidelines and that residential and visual amenities were adequately protected and that the information on file ensured that such amenities were properly protected. Furthermore, the Board did not consider it necessary to omit any turbine in relation to ecological concerns and granted conditional permission for the entire 11 no. turbines on the 29th of April 2013, subject to 17 no. conditions. This decision to grant permission was subsequently the subject of Judicial Review (2013 No. 450 JR). The decision of Barton J, delivered on the 25th February 2016, was to quash the decision of the Board on the grounds that Appropriate Assessment had not been properly carried out.

Cleanrath Windfarm Ltd. lodged a new application (Pl Ref. 15/6966) to the Planning Authority on the 22nd of December 2015 for a proposed development with the following description:

> *"The proposed wind farm will comprise the provision of a total of 11 no. wind turbines with a maximum ground to blade tip height of up to 150m, upgrading of existing and provision of new internal access roads, provision of a wind anemometry mast (height up to 100 metres), 2 no. borrow pits, underground electrical cabling, underground grid connection electrical cabling including all associated infrastructure, junction accommodation works for the proposed*

turbine delivery route and provision of a temporary roadway to facilitate turbine component deliveries, 1 no. electricity sub-station with control building and associated equipment, 1 no. construction compound, upgrading of the existing site access junctions, permanent signage, and all ancillary site works. The proposed development comprises the redesign of a wind farm at this location previously considered by Cork County Council and An Bord Pleanála under pl. ref: 11/5245, and PL 04.240801 respectively."

The Planning Authority in their assessment of the application raised 20 no. points for further consideration regarding ecology, noise, storage and manage of material during the construction, operation and decommissioning phases and archaeology. The Planning Authority's further information request was responded to by the Applicant over February – April 2016. The Planning Authority, having regard to the submitted EIS, NIS and further information response, review of all objections and submissions, internal and external reports, and independent reports commissioned, decided to grant conditional permission subject to 40 no. conditions subject to the omission of omission of 5 no. turbines in the interest of '*minimising negative impacts on habitats and species of high biodiversity value within the site'*.

The Planning Authority's decision to grant conditional permission for the development was subject to both a 1st Party Appeal by the Applicant and a 3rd Party Appeal lodged by 4 no. parties (PL.04.246742). The 1st Party Appeal was lodged against the omission of turbines . The grounds of appeal from the 3rd Parties predominantly considered the likelihood of significant impacts from the proposed development on the surrounding environment (noise, water quality, habitat protection, ecology and Natura 2000 sites, health and safety and landscape and visual impacts) and procedural considerations regarding the Planning Authority's consideration of 3rd Party submissions. Against this backdrop, the Planning Inspector concluded the following in regard to the EIS and NIS submitted as part of the application:

"I would be satisfied that the EIS submitted, as supplemented by additional information to Cork County Council, submissions from the 1st Party to the Board (both by way of 1st Party appeal and 1st Party response to 3rd Party appeals and responses), comprehensively addresses the likely significant impacts of the proposed development on the environment, taking into consideration cumulative impact with other wind farm developments. Baseline surveys have been carried out, likely impacts identified and mitigation measures put forward. Having regard to the foregoing, and following a review of the available information, including the consideration of alternatives as set out in the submitted EIS, I would be satisfied that the applicant has complied with the requirements of the Regulations. The proposed development will not have any significant impact on the environment.

I would not accept the contention of objectors that 'Reasonable Scientific Doubt' remains as to the impact of this wind farm development on European sites. I consider it reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of European sites 000108 or 004109, or any other European site, in view of the Conservation Objectives for the sites in question."

The Board upheld the Inspector's recommendation to grant permission for the development on the 19th of May 2017, subject to 22 no. conditions, a copy of this decision is included as Appendix 2-1. It is important to note that the grant of permission did not require the omission of any of the proposed turbines. Following the grant of permission, the Applicant engaged with the relevant Planning Authority in relation to all condition compliance requirements, and subsequently, construction of the permitted wind farm and all associated works commenced in compliance with the issued permission.

The electrical substation permitted by the Board under PL04.246742 has not been constructed as this piece of infrastructure was not necessary as a revised substation was consented at the Derragh Wind Farm by Cork County Council under Pl. Ref. 17/5126, as discussed below. It is also of note that the met mast and two of the eleven wind turbines (and their directly related infrastructure (i.e., access roads and

associated underground cabling) have not been constructed. Furthermore, some roads and underground cabling were not constructed as they were superseded by the grant of permission for a revised underground cable route and service access road, granted by Cork County Council under Pl. Ref. 18/4458, as further discussed below.

Judicial Review proceedings challenging the decision of the Board were instituted in July 2017 challenging the decision of the Board to grant permission under PL04.246742 and culminated in an Order of the Supreme Court dated the 19th June 2020 whereby the order quashing the decision to grant the 2017 permission was stayed pending the decision of the Board on this application for substitute consent, on the undertaking of Cleanrath Windfarm Ltd. not to operate the wind farm development other than in accordance with the terms of the letter from its solicitor dated the 30th day of April 2020, the terms set out in this letter have been previously discussed in full in Section 1.3 of this rEIAR/. This substitute consent application is being lodged following the Board granting Leave to Apply for Substitute consent for the Cleanrath wind farm development (under the provisions of PL04.306272). A copy of the Boards decision in this regard is included as Appendix 2-2

Kerry Section of the Underground Grid Connection

Concurrent with the submission of Pl Ref. 15/6966 to Cork County Council, a separate planning application (Ref. No. 15/1164) was also submitted to Kerry County Council by Cleanrath Windfarm Ltd. for the provision of an underground grid connection electrical cabling including all associated infrastructure and works in the townland of Grousemount, Kilgarvan, Co Kerry. The cable facilitates the connection to the national grid of the Cleanrath wind farm development to the national grid via the Coomataggart Substation (permitted by Kerry County Council under Pl. Ref. No. 15/262). The planning application was accompanied by an EIS and NIS. Kerry County Council issued a Notification of Decision to Grant on the 3rd June 2016, and in circumstances where there was no appeal against that decision, a Notification of Final Grant issued on 7th July 2016.

Derragh Substation

Framore Ltd. lodged a planning application to Cork County Council (Pl Ref. 17/5126) for a revised substation and temporary construction compound at a site in the townland of Rathgaskig, c. 3 km from Ballingeary, Co. Cork) on the 10th May 2017. This substation was provided as part of the Derragh Wind farm Development (listed in table 2.3 further below). A Notification of Decision to Grant was issued on the 30th June 2017 and in circumstances where there was no appeal against that decision, a Notification of Final Grant issued on 11th of August 2017 subject to 4 no. conditions. It should be noted that the previously approved Cleanrath wind farm application fully assessed and considered bringing the power from the Cleanrath wind farm development to a substation at the Derragh Wind farm in the event of both projects proceeding.

Amendment to Underground Cable Route and Site Access

Cleanrath Windfarm Ltd. lodged an application to Cork County Council (Pl Ref. 18/4458) on the 23rd February 2018 for the provision of underground electrical cabling and operational access/inspection road including all associated infrastructure and works. The development altered the underground electrical cabling and operational road layout previously considered by Cork County Council (15/6966) and An Bord Pleanála (PL.04.246742) for the Cleanrath Wind Farm. A Notification of Decision to Grant was issued on the 19th April 2018 as no appeal was made against that decision, a Notification of Final Grant issued on 28th of May 2018, subject to 11 no. conditions.

The decisions made by Kerry County Council (Pl. Ref. 15/1164), and Cork County Council (Pl. Refs. 17/5126 and 18/4458), and the works authorised pursuant to those permissions have been carried out. These works have been provided in accordance with their issued permissions and therefore do not require substitute consent, however, for clarity please note that they are considered to constitute part of the Cleanrath wind farm development within the various sections of this rEIAR.

2.3.2 Applications in the Vicinity of the Cleanrath Wind Farm Development

A review of the Cork County Council and Kerry County Council Planning Registers was completed on the 20th July 2020. The majority of planning applications in the immediate vicinity of the Cleanrath wind farm development are related to the provision and/or alteration of one-off housing and agricultural developments. Where relevant, these applications have been considered in the design of the project and are considered within the relevant sections of this rEIAR.

Between 2003 to March 2020, 103 no. valid applications were lodged to Cork and Kerry County Councils within the vicinity of the Cleanrath wind farm development with the majority (85 no.) lodged pre-2010. The most recent application for new residential development was Pl Ref. 19/5334 lodged by G. Hyde to construct a new dwelling house at Gortanaddan, Co. Cork. This site is located c. 1.3km north-east of the Cleanrath wind farm development . The Planning Authority granted conditional permission on the 7th January 2020 in the context of the Cleanrath wind farm having already been constructed.

Other applications lodged within the vicinity of the Cleanrath wind farm development, which don't relate to residential or agricultural development, include the following:

- Pl Ref. 13/5671: Application lodged by Coiste Forbartha Reidh na nDoiri to provide 1 no. finger post sign located at the site entrance to a holy well, installation of various light fittings throughout the site including any associated electrical works, and erection of 1 no. public information board at Reananerree, Cloheena, Co. Cork on the 28th August 2013. The Planning Authority granted conditional permission on the 18th November 2013.
- Pl Ref. 08/8074: Application lodged by D. O'Tuama for the construction of an engineering workshop, underground fuel storage tank, truck washing facility, treatment plant and percolation area, site infrastructure, vehicular entrance and associated site works at Cloontycarthy, Reananeree Co. Cork on 24th July 2008. The Planning Authority granted conditional permission on the 17th October 2008.

Due to the volume of historic applications lodged within the vicinity of the Cleanrath wind farm development over the past two decades, Table 2-2 below records valid consented planning applications lodged between 2010 – 2020 on the basis that any consented development granted prior to 2010, and which has been constructed has been fully established within the receiving environment. Other Wind Farm developments in the vicinity are set out and discussed further in Section 2.3.3 below.

Table 2-1. Applications Lodged within the Vicinity of the Cleanrath wind farm development (Post-2010)

Pl Ref.	Lodgement Date	Description of Development	Location	Planning Authority Decision
105715	09/07/2010	Construction of dwelling to include a ground floor garage and storage area for machinery for own private use, septic tank and associated site works	Milmorane, Inchigeela, Co. Cork	Conditional (08/02/2011)
105911	28/07/2010	New vehicular entrance, entrance lane, and parking & turning area to serve a holy well.	Reananerree, Cloheena, Co. Cork	Conditional (21/11/2010)
108782	22/12/2010	Construction of Dwelling house	Lackabaun, Ballingeary, Co. Cork	Conditional (14/03/2011)

Pl Ref.	Lodgement Date	Description of Development	Location	Planning Authority Decision
125144	28/05/2012	Retention of existing ground excavation works and permission for new timber storage area, weighbridge and associated site works	Cloontycarthy Reananeree, Co. Cork	Conditional (27/08/2012)
125577	18/07/2012	Construction of dwelling and domestic garage	Augeris, Ballingeary, Co. Cork	Conditional (16/10/2012)
125816	23/08/2012	Dwellinghouse and garage, extension of duration to permission granted under ref. no. 07/9729	Cloontycarthy Reananerree, Co. Cork	Unconditional
134901	15/05/2013	Retention of minor elevational changes to existing Dwellinghouse including extra window to gable end together with retention of existing domestic garage	Gorteennakilla, Ballingeary, Co. Cork	Conditional (06/08/2013)
135336	11/07/2013	Construction of dwelling house, domestic garage and new entrance	Gortanaddan Kilnamartyra, Co. Cork	Conditional (27/11/2013)
135671	28/08/2013	To carry out the following works to serve a holy well: erection of 1 no. finger post sign located at the site entrance, installation of various light fittings throughout the site including any associated electrical works, and erection of 1 no. public information board	Reananerree, Cloheena, Co. Cork	Conditional (18/11/2013)
15/262	04/02/2015	An electrical transformer station consisting of three single storey control buildings with associated outdoor electrical equipment, including transformers, lightning protection masts and scada poles, effluent holding tank, internal roads, boundary fencing, associated access track and all other associated site development works. The proposed development is an amendment to the previously approved electrical transformer	Grousemount, Co. Kerry	Conditional 05/08/2015

Pl Ref.	Lodgement Date	Description of Development	Location	Planning Authority Decision
		station at Grousemount wind farm (ref. No. 10/1333)		
154478	11/03/2015	Construction of two storey Dwellinghouse, new entrance and domestic garage	Gurteenflugh, Ballingeary, Co. Cork	Conditional (12/11/2015)
154821	22/04/2015	Retention of (a) extension to side of dwelling, (b) domestic garage, and (c) altered septic tank location (Previous Planning Ref. No. 1266/77)	Lisboy More Kilnamartyra Macroom, Co. Cork	Conditional (23/07/2015)
155738	05/08/2015	Construction of a split level dwelling house wastewater treatment system and all associated site works	Cloontycarthy Reananerree, Co. Cork	Conditional (04/12/2015)
151150	21/12/2015	Construct a dwelling house	Sillahertane, Kilgarvan, Co. Kerry	Conditional (23/02/2016)
16233	10/03/2016	Construct A Sheep House	Knockanruddig Kilgarvan Co Kerry	Conditional (27/04/2016)
165878	27/07/2016	Construction of two storey Dwellinghouse, domestic garage, domestic effluent treatment system and all ancillary works	Reananerree, Co. Cork	Conditional (01/11/2016)
176117	16/08/2017	Construct a calving house and a cubicle/loose house with underground effluent storage tank and associated site work	Cloontycarthy Reananerree Macroom, Co. Cork	Conditional (12/09/2018)
185108	02/05/2018	Construct an extension to Dwellinghouse, alterations to the elevations, installation of a stairs to the existing attic space and all associated site works	Eachros, Augeris, Ballingeary, Co. Cork	Conditional (06/12/2018)
185692	29/06/2018	Construction of Dwellinghouse, domestic garage, new entrance together with all other ancillary site works	Gortanaddan Kilnamartyra, Co. Cork	Conditional (12/11/2018)
185848	13/07/2018	To construct a new dwelling house	Lisboy More, Kilnamartyra, Co. Cork	Conditional (30/11/2018)
194024	10/01/2019	Construction of an extension, new dormer window, elevational changes, demolitions and internal refurbishments to	Gorteennakilla, Cahir, Ballingeary, Co. Cork	Conditional (09/05/2019)

Pl Ref.	Lodgement Date	Description of Development	Location	Planning Authority Decision
		an existing dwelling, landscaping and all associated site works		
194193	30/01/2019	Construction of new dwellinghouse	Kilmore Ballingeary Co. Cork	Conditional (29/07/2019)
194245	06/02/2019	Alterations and 2-storey extension to existing dwellinghouse together with demolition of existing rear extension to existing dwellinghouse	Gortnabinna Ballingeary Macroom Co. Cork	Conditional (22/11/2019)
195334	24/05/2019	Dwellinghouse	Gortanaddan, Co. Cork	Conditional (26/08/2019)
195979	07/08/2019	1. Construction of agricultural building to include straw bedded livestock housing and associated livestock crush facilities, ancillary dry goods and machinery store, 2. Construction of unroofed slatted slurry tank and unroofed manure store, 3. Erection of 2 no. meal bins along with associated site works.	Gorteennakilla Ballingeary, Co. Cork	Conditional (19/11/2019)
196405	04/10/2019	To construct new single storey and two storey extension to rear of existing dormer style dwelling, facade alterations to dwelling and all associated site works	Gortanaddan, Co. Cork	Conditional (07/01/2019)
204131	29/01/2020	Retention for a building extension for a disabled WC and circulation space, re-location of plant room and all associated site works.	Scoil Mhuire Dromanallig Ballingeary Co. Cork	Conditional (22/06/2020)

2.3.3 Other Wind Farm Sites

Within the wider area, there have been a large number of planning applications for wind farm developments (comprising two or more turbines) lodged within a 20-kilometre radius of the Cleanrath wind farm development. These wind farms applications are based on a review of the Cork County Council and Kerry County Council Planning Register and include those listed below. This record lists the main relevant applications in relation to the permitted and operational wind turbine applications in the vicinity. It is not intended to be exhaustive and list every application associated with the sites, the locations of these consented and/or operational wind farms are shown in Figure 13-6 of the landscape and visual impact section (Chapter 13) of this document.

Table 2-2. Wind Farm Applications Lodged within the Vicinity (20 kilometres) of the Cleanrath wind farm Development

Wind Farm	Pl. Ref.	Lodgement	Description	Location	Local Authority Decision
Derragh	12/5270	08/06/2012	Development of a wind farm consisting of 6 turbines (each with a maximum hub height of 100, maximum rotor diameter of 100m, and with a total tip height of 150m), a substation, one borrow pit, new internal access roads, upgrading of existing internal access roads and all ancillary works	Derragh, Rathgaskig and Lack Beg near Ballingeary, Co. Cork. Adjacent to the grid connection route for the Cleanrath wind farm development	CCC – Conditional Grant (18/06/2013) ABP – Grant (PL04.242223 - 15/11/2013) and Further Grant following Judicial Review (O'Grianna Judgement) and remittal PL04.245082 (15/06/2016)
Coomagearlahy	02/1241	22/05/2002	Construct a windfarm consisting of 17 [14 no. turbines built during Phase 1] wind turbines, an electrical substation with control building, 2 no. 50m high meteorological masts, construct and extend existing internal site tracks and associated works - EIS Received	Coomagearlahy Kilgarvan, Co. Kerry (c. 11km north-west of the Cleanrath wind farm development)	KCC – Conditional Grant (27/12/2002)
	03/2306	07/08/2003	Construct a wind farm extension to planning reg no 1241/02, extension will consist of 4 wind turbines [1 no. built during Phase 2] (hub height 80 m, blade diameter 80 m), construction and extension of existing internal site tracks and associated works. EIS Received		KCC – Conditional Grant (01/10/2003)
Sillahertane	03/1359	20/05/2003	Erect 10 no. 1 mw wind turbines, 1 no. 40m wind monitoring mast(temporary), service roadways and control house. EIS received	Sillahertane Kilgarvan, Co. Kerry (c. 10km west of the Cleanrath wind farm development)	KCC – Conditional Grant (18/12/2003)
Grousemount and Barnastooka	10/197	04/03/2010	The development will consist of fourteen (14) wind turbines of 80 metre hub height and 90 metre rotor diameter, control building, electrical compound, associated site roads, drainage and site works. Environmental impact statement accompanied (EIS)	Gortlahard, Coolnagoppoge and Barnastooka Kilgarvan Co Kerry (c. 8 - 12km west of the Cleanrath wind farm development)	KCC – Conditional Grant(25/11/2010). 3rd Party Appeal (PL08.237551) Appeal Withdrawn
	10/1333	23/12/2010	Erect 24 wind turbines each having a rated electrical output of 2,000 kilowatts. Each wind turbine will have an overall maximum dimension of 126 metres, comprising a tower 80 - 85 metres high, with a diameter of about 4 metres at the base, to which three blades of 41 - 45 metres length will be attached.		KCC – Conditional Grant(26/01/2012)
	15/262	02/04/2015	The proposed development is an amendment to the previously approved electrical transformer station at Grousemount Wind Farm (ref. No. 10/1333)		KCC – Conditional Grant (05/08/2015)
Lettercannon	03/2508	27/08/2003	4 no. 1mw wind turbines service roadways and control house and 1 no. 40m wind monitoring mast (temporary) and river crossing (temporary) for construction purposes	Lettercannon Kilgarvan Co Kerry	3rd Party Appeal (PL08.209629). Granted Conditional Permission with

Wind Farm	Pl. Ref.	Lodgement	Description	Location	Local Authority Decision
				(c. 13km west of the Cleanrath wind farm development)	revised Conditions (27/04/2005)
	07/4515	12/12/2007	Move one wind turbine (T1) as an alteration to a six wind turbine development granted planning permission by An Bord Pleanála (ABP Ref PL. 08.209629 and Kerry County Council planning register Ref 03/2508). It is proposed to move the turbine approximately 480m to the northeast of its current location.		KCC – Conditional Grant (19/03/2008)
	07/4701	21/12/2007	Erect one wind turbine (T9), hub height 80m, blade diameter 90m, as an addition to a six wind turbine development granted planning permission by An Bord Pleanála (ABP Ref PL. 08.209629 and Kerry County Council planning register Ref 03/2508).		KCC – Conditional Grant (27/03/2008)
Clydaghroe / Creedon	04/3152	20/08/2004	Development of a wind farm, the wind farm will consist of 2 wind turbines and service roadways on a site, (an EIS has been submitted with this application)	Clydaghroe Clonkeen Co. Kerry (c. 12km north-west of the Cleanrath wind farm development)	KCC – Conditional Grant (16/11/2004)
	07/306	29/01/2007	The development will consist of 1 wind turbine and service roadway. EIS submitted.	Clydaghroe Clonkeen Co. Kerry (c. 12km north-west of the Cleanrath wind farm development)	KCC – Conditional Grant (25/04/2007)
	10/1302	21/12/2010	Construct a single turbine extension to an existing three turbine windfarm. The maximum hub height will be 68.3m and the maximum rotor diameter will be 82.4m resulting in a maximum tip height of 109.5.	Clydaghroe Clonkeen Co. Kerry (c. 12km north-west of the Cleanrath wind farm development)	KCC – Refused 1st Party Appeal (PL08.238677). Grant conditional permission (21/07/2011)
Clydaghroe / Cummeennabuddoge	06/1680	15/05/2006	Construct a wind farm, the development will consist of two wind turbines, two transformers, a control and metering building, a meteorological mast, site tracks and all associated works	Cummeennabuddoge and Clydaghroe Clonkeen Co Kerry (c. 11km north of the Cleanrath wind farm development)	KCC – Conditional Grant (11/08/2006)

Wind Farm	Pl. Ref.	Lodgement	Description	Location	Local Authority Decision
Inchincoosh	07/1605	20/04/2007	Erect six wind turbines hub height 80m, blade diameter 90m, one 80m high meteorological mast, four borrow pits, construction of internal site tracks and associated works	Inchincoosh Kilgarvan Co Kerry (c. 14km north-west of the Cleanrath wind farm development)	KCC – Conditional Grant (05/09/2007)
	07/4364	27/11/2007	Erect one wind turbine, hub height 80m, blade diameter 90m (as an addition to a five wind turbine development granted permission under planning ref. No. 07/1605)		KCC – Conditional Grant (29/02/2008)
Midas	03/1188	02/05/2003	Develop wind farm consisting of 9 no. Wind turbines of 78 metres hub height and 80 metres rotor blade diameter; wind monitoring mast of 40 metres height; on site tracks and electrical control house together with necessary cabling [6 no. turbines built]	Inchee Poulbatha & Foilgreana (c. 9 - 10km west of the Cleanrath wind farm development)	KCC – Conditional Grant (12/11/2003). 1st Part Appeal (PL08.204953) Appeal Withdrawn
	01/3571	03/12/2001	Construct a wind farm(8 no. Turbines) EIS received [4 no. turbines built]	Coolknoohil Co. Kerry (c. 10 - 11km west of the Cleanrath wind farm development	KCC – Conditional Grant (03/12/2002)
	02/719	03/22/2002	Construct a wind farm consisting of 6 no. Wind turbine generators, electrical substation, septic tank, percolation area, access roadways, buried cable ducts and a 50m anemometer mast. EIS received.		KCC – Conditional Grant (07/01/2003)
	03/2610	08/09/2003	Erect four wind turbines of 60m hub height, 52m rotor blade diameter, on-site tracks and cabling [3 no. turbines built]		KCC – Conditional Grant (18/02/2004)
	03/2609	08/09/2003	Erect 5 wind turbines of 60m hub height, 52m rotor blade diameter, on site tracks and cabling [4 no. turbines built]		KCC – Conditional Grant (18/02/2004)
	03/3665	10/12/2003	To increase the hub heights of 7 wind turbines of planning reg no. 01/3571 from 49m to 60m hub height		KCC – Conditional Grant (15/03/2004)
Bawnmore	01/6529	03/12/2001	Wind farm to include 7 no. turbines, substation and site tracks (5 no. turbines built)	Cahernafulla, Kilberrihert, Co. Cork (c. 17km to the north-east of the Cleanrath wind farm development.)	CCC – Conditional Grant (22/04/2003)
	08/8770	05/09/2008	An increase in hub height from 60 to 85 metres and rotor blade diameter from 66 to 82 metres as well as the addition of 1no. wind turbine to the permitted wind farm development at Cahernafulla.	Cahernafulla, Kilberrihert, Co. Cork (c. 17km to the north-east of the Cleanrath wind farm development.)	CCC – Conditional Grant (27/03/2009). 3rd Party Appeal (PL04.232274) Appeal Withdrawn

Wind Farm	Pl. Ref.	Lodgement	Description	Location	Local Authority Decision
Bawnmore 2 (Carriganimma Community Wind Farm)	07/4102	08/01/2007	Wind farm with 6 no. wind turbines (80m hub height and 80m blade diameter with total height not exceeding 120m), a 38kV.	Carriganimmy Macroom, Co. Cork (c. 15km to the north-east of the Cleanrath wind farm development.)	CCC – Conditional Grant (28/06/2007
Curraglass	20/350	03/07/2020	A renewable energy development with a 30-year operational life (from the date of commissioning) and will consist of up to 7 no. wind turbines with an overall blade tip height of up to 178.5 metres, a 38 kV electricity substation, including 4 no. battery storage containers and all associated site development and ancillary works.	Derreendonee, Curraglass and Cappaboy Beg Co. Cork (c. 12km to the south west of the Cleanrath wind farm development.)	Decision Due Date: 27/08/2020
Shehy More	13/551	30/09/2013	Ten year permission sought to construct a windfarm and all associated infrastructure. The proposed windfarm will comprise the provision of a total of 12 no. wind turbines [11 no. granted], with a maximum overall blade tip height of up to 131m. The Planning Application is accompanied by an Environmental Impact Statement (EIS) and a Natura Impact Statement (NIS).	Cloghboola, Gortnacarriga, Tooreenalour, Garryantorna, Shehy More, Dunmanway, Co. Cork (c. 6-10 km to the south west of the Cleanrath wind farm development)	CCC - Conditional Permission. 3rd Party Appeal (PL04.243486) Granted Conditional Permission on the 23rd of December, 2016
Derreenacrinning West	10/857	16/12/2010	Development to comprise of seven (7) electricity generating wind turbines with a hub height of 55 metres and a rotor diameter of 52 metres, an Electrical Compound, Sub-Station Building.	Derreenacrinnig West Drimoleague Co. Cork (c. 19km to the south of the Cleanrath wind farm development)	CCC – Conditional Permission. 3rd Party Appeal (PL88.239767) Conditional Permission Granted (05/12/2012)
Carrigarierk	15/730	22/12/2015	Ten year planning permission for the construction of a wind farm of up to 5 No. wind turbines, with a maximum ground to blade tip height of up to 140m.	Barnadivane (Kneeves), Co. Cork (c. 7km to the south of the Cleanrath wind farm development)	CCC - Refused 1st Party Appeal (PL04.246353) Conditional Permission Granted (28/10/2016)

Wind Farm	Pl. Ref.	Lodgement	Description	Location	Local Authority Decision
Dromleena	09/63	28/01/2009	Ten year permission to erect 11no. Wind Turbines on single site. This planning application will be accompanied by an EIS	Dromleena, Inchanadreen & Derrynasafagh Dunmanway, Co. Cork (c. 15-16km to the south of the Cleanrath wind warm development)	CCC – Conditional Grant (23/12/2009)
Kilvinane	01/980	28/02/2001	Windfarm consisting of 4 wind turbines, electrical substation with control building, 50m meteorological mast, upgrading of entrance & assoc. works [3 no. turbines built]	Garranure, Co. Cork (c. 20km to the south-east of the Cleanrath wind farm development)	CCC – Conditional Grant 1st / 3rd Party Appeal (PL04.127137) Conditional Grant (19/07/2002)
Gneeves	99/0616	12/02/1999	15.6 MW windfarm to incl. 13 turbines, 45m high measuring mast, control building, hard standing areas, compound, access roads, signs & anc. site works [11 no. turbines built]	Gneeves, Co. Cork (c. 14km to the north of the Cleanrath wind farm development)	CCC – Conditional Grant 3rd Party Appeal (PL04.111211) Appeal Withdrawn
	03/6585	18/12/2003	Modifications to windfarm permitted under Reg. No. N/99/0616 to include increase of the turbine height from 44m to 65m		CCC – Conditional Grant (29/03/2004)
	04/188	16/01/2004	Extension to windfarm permitted under reg. no. N/99/0616 to consist of 4 no. wind turbines (hub height 65m, blade tip 91m), construction of an extension of internal site tracks and associated works		CCC – Conditional Grant (16/08/2004)
	13/5717	04/09/2013	Ten year planning permission for an extension to existing Gneeves Wind Farm (Planning Refs. 99/0616, 03/6585, 04/1355, 04/0188, 08/5636, 13/4566). The proposed extension will comprise of 3no. turbines (each with a maximum tip height of 91m)		CCC – Conditional Grant (03/09/2014)
Curragh	07/10105	03/08/2007	Windfarm development comprising of 8 no. wind turbines, substation, meteorological mast, associated access roads, borrow pit and associated works	Curragh Drishane, Millstreet, Co. Cork (c. 14km north-east of Cleanrath wind farm development)	CCC – Conditional Grant (21/08/2008)
Coomacheo	03/1997	29/04/2003	Windfarm to include 17 no. turbines, 60m meteorological mast,120KV substation, control building, fencing, compound and ancillary works [15 no. turbines built]	Coomacheo, Co. Cork	CCC – Conditional Grant (25/07/2003)

Wind Farm	Pl. Ref.	Lodgement	Description	Location	Local Authority Decision
				(c. 14km north of Cleanrath wind farm development)	
Caherdowney	03/3079	23/06/2003	Windfarm to include 4 no. turbines, meteorological mast, transformers,38kv substation, control building, site tracks and associated works	Caherdowney, Co. Cork (c. 13km north of Cleanrath wind farm development)	CCC – Conditional Grant (31/10/2003)
Knocknamork	19/4972	18/04/2019	Renewable energy development consisting of the provision of a 7 turbine wind farm, solar photovoltaic array, electricity substation, battery storage compound and all associated works.	Slievereagh and Coomnaclohy Ballyvourney Co. Cork (c. 10-11km north of the Cleanrath wind farm development)	CCC – Conditional Grant (02/01/2020)
Knockeenboy	11/59	08/02/2011	Development is to comprise of seven (7) electricity generating wind turbines with a hub height of up to 70 metres and a rotor diameter of up to 71 metres	Cashloura Kilronane West and Knockeenboy Dunmanway, Co. Cork (c. 20km to the south of the Cleanrath wind farm development)	CCC – Conditional Grant 3rd Party Appeal (PL88.240070) Conditional Permission Granted with Revised Conditions (24/08/2012)
Milane Hill	98/1482	14/04/1998	Construction of windfarm comprising of 10 no. turbines, transformers,1 meteorological mast, control building, access tracks ,gates, signs & anc. Works [9 no. turbines built]	Milane Hill, Drimoleague, Co. Cork (c. 19km to the south of the Cleanrath wind warm development)	CCC – Conditional Grant 3rd Party Appeal (PL04.108950) Conditional Permission Granted with Revised Conditions (25/05/1999)
Barnadivane	05/5907	17/08/2005	18 no. wind turbines, 18 no. transformers, 110kV substation, 110kV switch station, 1 no. 70m high wind monitoring mast, construction and upgrading of site entrances, site tracks and associated works	Barnadivane, Co. Cork (c. 13 kilometres to the south east of the Cleanrath wind farm development)	CCC – Conditional Grant (39 no. Conditions) 3rd Party Appeal (PL04.219620) Conditional Permission Granted

Wind Farm	Pl. Ref.	Lodgement	Description	Location	Local Authority Decision
					(14/02/2007)
	14/6760	19/12/2014	The construction of six wind turbines, with a maximum tip height of up to 131m and associated turbine foundations and hardstanding areas. This application is intended to replace the development already granted permission under PL04.219620 (05/5907) and subsequently extended under 11/6605. This application is seeking a 10-year planning permission. An Environmental Impact Statement and AA Screening Report have been prepared in respect of the planning application.	Lackareagh and Garranereagh Lissarda and Barnadivane (Kneeves) Teerelton Co Cork (c. 13 kilometres to the south east of the Cleanrath wind farm development)	CCC – Conditional Grant 3rd Party Appeal (PL04.245824). *Grant of Permission with Revised Conditions (Quashed following Judicial Review)* 3rd Party Appeal (PL04.248153) *Granted Conditional Permission with revised Conditions on 2nd of April 2019 – Quashed by High Court in May 2020 and remitted back to the Board*
Garranereagh	03/2047	01/05/2003	Wind farm to include 5 no. turbines, control housing and electrical compound anemometer mast, anemometer, service roadways & assoc. works	Garranereagh, Co. Cork (c. 15 kilometres to the south east of the Cleanrath wind farm development)	CCC – Conditional Grant (27/11/2003)
	10/5711	09/07/2010	Construction of a wind farm development comprising of 4 wind turbines with a hub height of up to 80m with blade length of 41m. This development requires an EIS and the EIS has been submitted with the application).		CCC – Conditional Grant(16/12/2010)

2.4 Scoping and Consultation

2.4.1 Scoping

Scoping is the process of determining the content, depth and extent of topics to be covered in the environmental information to be submitted to a competent authority for projects that are subject to an remedial Environmental Impact Assessment (rEIA). 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 rEIAR and the specific standards of information they require. Comprehensive and timely scoping helps ensure that the rEIAR refers to all relevant aspects of the Cleanrath wind farm 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 rEIAR, it also provides a feedback mechanism for the proposal design itself.

A scoping report, providing details of the application site and the subject grid connection, was prepared by MKO and circulated in May 2020. MKO requested the comments of the relevant personnel/bodies in their respective capacities as consultees with regards to the rEIA process

2.4.2 Scoping Responses

Table 2-4 presents a summary of all scoping responses received. Copies of the scoping responses are included in Appendix 2-3 of this rEIAR.

In the interests of completeness the scoping responses previously received during the preparation and application process for the previous planning application for the Cleanrath wind farm (Pl. Ref. 15/6966) have also been considered and copies of the scoping responses from the Development Applications Unit (DAU)/National Parks and Wildlife Service (NPWS), Cork County Council Environment Section, Geological Service of Ireland (GSI), Transport Infrastructure Ireland (TII) and MosaicNet are included in Appendix 2-3a of this rEIAR. These scoping responses and the items raised therein have been dealt with in Chapter 7 (Biodiversity, Flora and Fauna), Chapter 7 (Ornithology), Chapter 8 (Geology and Soils) and Chapter 14 (Material Assets) respectively.

The recommendations of the consultees have informed the rEIAR preparation process and the contents of the same.

Table 2-3. Scoping Responses

Consultee	Scoping Response Date	Scoping Response	rEIAR Chapter
Department of Agriculture, Food and the Marine (DAFM)	10.06.2020	If the Cleanrath wind farm development involves the felling or removal of any trees, the DAFM states that the developer must obtain a Felling License from this Department before trees are felled or removed. The response further notes that the interaction of subject / proposed works with the environment locally and more widely, in addition to potential direct and indirect impacts on designated sites and water, will need to be assessed. Consultation with relevant environmental and planning authorities may be required where specific sensitivities arise (e.g. local authorities, National Parks & Wildlife Service, Inland Fisheries Ireland, and the National Monuments Service).	**Chapter 4** – Description **Chapter 6** – Biodiversity, Flora and Fauna **Chapter 13** – Landscape and Visuals
Department of Defence	03.06.2020	In all locations where windfarms are permitted, the DoD requires that a condition on the following lighting requirements are met: 1. *Single turbines or turbines delineating corners of a windfarm should be illuminated by high intensity strobe lights (Red).* 2. *Obstruction lighting elsewhere in a windfarm will be a pattern that will allow the hazard to be identified and avoided by aircraft in flights.* 3. Obstruction lights used should be incandescent or of a type visible to emit light at the near Infra-Red (IR) range of the electromagnetic spectrum specifically at or near 850nanometres (nm) of wavelength. Light intensity to be of similar value to that emitted in the visible spectrum of light. Obstruction lights used should be incandescent or of a type visible to Night Vision Equipment.	**Chapter 4** – Description o
Fáilte Ireland	18.05.2020	Fáilte Ireland issued copy of their '*EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects*' which were recommended to be taken into account in the preparation of the rEIAR. It should be noted that the guidelines are non-statutory and act as supplementary advice to the EPA EIAR Guidelines.	**Chapter 5** – Population and Human Health
Geological Survey of Ireland	20.05.20	The GSI set out their input on the subject / proposed renewable energy development under the following headings:	**Chapter 8** - Geology and Soils

Consultee	Scoping Response Date	Scoping Response	rEIAR Chapter
		Geoheritage – GSI records show that there are no County Geological Sites located within the Cleanrath wind farm development site boundary. Concerning the installed underground grid connection cable route, the GSI notes that the route appears to go through the "Ballingeary Esker", which has been identified as a geological heritage site, located between Gorteennakilla and Gurteenowen, North East of the Bunsheelin River. However, as the route appears to follow the existing road infrastructure, the GSI states that disruption to the "Ballingeary Esker" should have been minimal and should not have altered the site integrity. There are sites recorded within the 15km radius marked on Drawing 2.2 of the scoping document. The EIA (rEIA) should consider GSI's Geological Heritage data set in this regard. Geotechnical Database Resources – GSI recommends that the Geotechnical Database is consulted as part of the rEIA with regard to baseline data for the region and/or within the vicinity of the Cleanrath wind farm development. Groundwater – GSI recommends that the National Aquifer and Recharge Map should be consulted with regard to aquifers, karst landscapes and landforms and public and group scheme water supplies. GSI also recommends that other groundwater related data available within their online databases is also used within the rEIAR assessment in terms of groundwater wells and springs, aquifer vulnerability, subsoil permeability and drinking water protection areas. Geohazards – The landslide susceptibility mapping for County Cork indicates that the subject development site is generally classified as a low to medium susceptibility. The GSI welcomes the inclusion of a geotechnical peat assessment as part of the rEIAR process. Current data shows no recorded landslides within the Cleanrath wind farm development site. GSI recommends that geohazards are taken into consideration, especially when developing areas where these risks are prevalent. To this end, the Applicant should consult the available data on landslides and landslide susceptibility, groundwater flooding and etc. Natural Resources – GSI states that the consideration of mineral resources as a material asset which should be explicitly recognised within the EIA (rEIA). GSI notes that they provide data, maps, interpretations and advice on matters related to minerals, their use and their development. As such, the rEIAR should also consider potential for resource sterilisation as part of the planning process. GSI concludes their response with the requirement that the above referenced data is considered in the planning process in relation to Appropriate Assessment (AA) and rEIAR stages, as required.	

Consultee	Scoping Response Date	Scoping Response	rEIAR Chapter
Health Service Executive	17.06.2020	The HSE issued a Consultation Report on the subject / proposed development. The HSE provides a general recommendation that the following documents be considered when preparing the rEIAR: › Guidelines on the information to be contained in EIS (2002); › Advice Notes on Current Practice in the preparation of EIS (2003); and › Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment Generally, the HSE states that the rEIA should examine all likely significant impacts and provide the following information for each: › Description of the receiving environment; › The nature and scale of the impact; › An assessment of the significance of the impact; › Proposed mitigation measures; and › Residual impacts. It is recommended that the wider determinants of health and wellbeing are considered in a proportionate manner when considering the rEIA. This includes positive likely significant impacts, which should be also identified and assessed, in addition to any likely negative significant impacts from the Cleanrath wind farm development. The Environmental Health Service (EHS) also recommends that the following matters are considered within the EIAR (rEIAR): Public Consultation: The EHS acknowledges that, while the development has commenced, it is strongly recommended that public consultation with the local community should be carried out to ensure all potentially significant impacts have been adequately addressed. Sensitive receptors and other stakeholders should be identified to ensure all necessary and appropriate mitigation measures are put in place to avoid any complaints about the subject / proposed wind farm development in the future. The EIAR (rEIAR) should clearly demonstrate the link between public consultations and how those consultations have influenced the decision-making process in the rEIA. Decommissioning phase: The rEIAR should detail how the existing turbines will be decommissioned and waste management system for the turbines and associated material. Information should also be provided regarding the proposed methodology to be used for the disposal of the materials forming the foundations of the wind turbines.	› **Chapter 2** – Background › **Chapter 4** – Description › **Chapter 5** – Population and Human Health › **Chapter 8** – Land and Soils › **Chapter 9** – Hydrology and Hydrogeology › **Chapter 10** – Air and Climate › **Chapter 11** - Noise › **Chapter 14** – Material Assets › **Chapter 15** – Interaction of the Foregoing

Consultee	Scoping Response Date	Scoping Response	rEIAR Chapter
		Siting and location of turbines: The rEIAR should include a map and a description of the location of each of the subject / proposed wind turbines. Opportunity for Health Gain: The Clenarth wind farm development should be assessed with a view to including opportunities for health gain within the site of the wind farm by including greenways, cycle-paths or walking routes. Noise & Vibration: The potential impacts for noise and vibration from the construction and operational phases of development arising from the Cleanrath wind farm development on all noise sensitive locations must be clearly identified in the rEIAR. A baseline noise monitoring survey should be undertaken to establish the existing background noise levels. The rEIAR must also consider the appropriateness and effectiveness of all existing / proposed mitigation measures to minimise noise/vibration. Shadow Flicker: It is recommended that a shadow flicker assessment is undertaken to identifying all dwellings and sensitive receptors which may be impacted by shadow flicker. The assessment must include all existing and proposed mitigation measures. Air Quality: Due to the nature of the construction works, generation of airborne dust has the potential to have significant impacts on sensitive receptors. A Construction Environmental Management Plan (CEMP) should be included in the rEIAR which details dust control and mitigation measures. Surface and Groundwater Quality: The Cleanrath wind farm development has the potential to have a significant impact on the quality of both surface and ground water. Any potential significant impacts to drinking water sources should be assessed. Details of bedrock, overburden, vulnerability, groundwater flows, aquifers and catchment areas should be considered when assessing potential impacts and any existing and proposed mitigation measures. Geological Impacts: A detailed assessment of the current ground stability of the site for the existing and proposed wind farm development and all mitigation measures should be detailed in the rEIAR. The assessment should consider the impact construction work may have on the future stability of ground conditions, extreme weather events, site drainage and the potential for soil erosion. Ancillary Facilities: The rEIAR should include details of the location of the site office, construction compound, fuel storage depot, sanitary accommodation and canteen, First Aid facilities, disposal of wastewater and the provision of a potable water supply to the site canteen. Cumulative Impacts: The rEIAR should include a detailed assessment of any likely significant cumulative impacts of the development with regard to all existing and proposed wind farm developments in the area.	

Consultee	Scoping Response Date	Scoping Response	rEIAR Chapter
Irish Aviation Authority	19.06.2020	The IAA states that, in the event that planning permission is granted for the Cleanrath renewable energy development, the applicant should be conditioned to contact the IAA to complete the following requirements: › Agree an aeronautical obstacle warning light scheme; › Provide as-constructed coordinates in WGS84 format together with ground and tip height elevations at each wind turbine; and › Notify the Authority of intention to commence crane operations with a minimum of 30 days prior notification of their erection.	› **Chapter 14** – Material Assets
Irish Water (IW)	25.05.20	IW states that the agency currently does not have the capacity to advise on scoping of individual projects. However, in general IW recommends the following aspects of Water Services to be considered in the scope of a rEIAR, where relevant. › Impacts of the development on the capacity of water services (do existing water services have the capacity to cater for the new development if required). This is confirmed by IW in the form of a Confirmation of Feasibility (COF); › Any up-grading of water services infrastructure that would be required to accommodate the development; › In relation to a development that would discharge trade effluent – any upstream treatment or attenuation of discharges required prior to discharging to an IW collection network; › In relation to the management of surface water; the potential impact of surface water discharges to combined sewer networks & potential measures to minimise/stop surface waters from combined sewers; › Any physical impact on IW assets – reservoir, drinking water source, treatment works, pipes, pumping stations, discharges outfalls etc. including any relocation of assets; › If considering a development proposal, it is best practice to contact us in advance of designing your proposal to determine the location of public water services assets; › Any potential impacts on the assimilative capacity of receiving waters in relation to IW discharge outfalls including changes in dispersion /circulation characterises; › Any potential impact on the contributing catchment of water sources, e.g. the potential of the development to influence/ present a risk to the quality of the water abstracted by IW for public supply; › Where a development proposes to connect to an IW network and that network either abstracts water from or discharges waste water to a “protected”/sensitive area, consideration as to whether the integrity of the site/conservation objectives of the site would be compromised; and	› **Chapter 9** – Hydrology and Hydrogeology

Consultee	Scoping Response Date	Scoping Response	rEIAR Chapter
		› Mitigation measures in relation to any of the above IW concludes their correspondence noting that the agency will not accept new surface water discharges to combined sewer Networks and that All necessary measures to protect and maintain access to Irish Water infrastructure and water sources shall be undertaken and incorporated into any proposals for road design.	
Transport Infrastructure Ireland (TII)	26.05.2020	TII advises that it is not in a position to engage directly with planning applicants in respect to developments. As such, the issuing of correspondence is provided as best practice guidance only. With respect to rEIAR scoping issues, developer/scheme promoter should have regard, inter alia, to the following: › Consultations should be had with the relevant Local Authority/National Roads Design Office with regard to locations of existing and future national road schemes in the vicinity of the Cleanrath wind farm development site, e.g. N22 Baile Bhuirne to Macroom Scheme; › TII would be specifically concerned as to potential for impacts on the existing national road network (and junctions with national roads) in the proximity of the Cleanrath wind farm development, e.g. existing N22; › The developer should assess visual impacts from existing national roads; › The developer should have regard to any Environmental Impact Statement and all conditions and/or modifications imposed by An Bord Pleanála regarding road schemes in the areas concerned, including cumulative impacts; › The developer, in preparing rEIAR, should have regard to TII Publications (formerly DMRB and the Manual of Contract Documents for Road Works); › The developer, in preparing rEIAR, should have regard to TII's Environmental Assessment and Construction Guidelines, including the Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes (National Roads Authority, 2006), › The rEIAR should consider the Environmental Noise Regulations 2006 (SI 140 of 2006) and, in particular, how the development will affect future action plans by the relevant competent authority. › It would be important that, where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment be carried out in accordance with relevant guidelines. The Authority's Traffic and Transport Assessment Guidelines (2014) should be referred to in relation	› **Chapter 5** – Population and Human Health › **Chapter 14** – Material Assets

Consultee	Scoping Response Date	Scoping Response	rEIAR Chapter
		to development with potential impacts on the national road network. The scheme promoter is also advised to have regard to Section 2.2 of the NRA/TII TTA Guidelines which addresses requirements for sub-threshold TTA; › The designers are asked to consult TII Publications to determine whether a Road Safety Audit is required; › In the interests of maintaining the safety and standard of the national road network, the rEIAR should identify the methods/techniques proposed for any works traversing/in proximity to the national road network; › In relation to haul route identification, the applicant/developer should clearly identify haul routes proposed and fully assess the network to be traversed. Separate structure approvals/permits and other licences may be required in connection with the proposed haul route. All structures on the haul route should be checked by the applicant/developer to confirm their capacity to accommodate any abnormal load proposed; and › Where any modifications to grid connection may be required in the Cleanrath wind farm development, the scheme promoter should note locations of existing and future national road schemes. In the context of existing national roads, alternatives to the provision of cabling along the national road network should be considered in the interests of safeguarding the investment in and the potential for future upgrade works to the national road network. The cable routing should avoid all impacts to existing TII infrastructure and works required to such infrastructure shall only be undertaken in consultation with and subject to the agreement of TII.	
An Taisce	-	No response received to date	
Bat Conservation Ireland	-	No response received to date	
BirdWatch Ireland	-	No response received to date	
Commission for Regulation of Utilities , Water and Energy	-	No response received to date	
Cork Airport	-	No response received to date	
Department of Culture, Heritage and the Gaeltacht (Development	-	No response received to date	

Consultee	Scoping Response Date	Scoping Response	rEIAR Chapter
Applications Unit)			
Department of Communications, Climate Action and the Environment	-	No response received to date	
Department of Transport, Tourism & Sport	-	No response received to date	
EirGrid	-	No response received to date	
Forest Services	-	No response received to date	
The Heritage Council	-	No response received to date	
Inland Fisheries Ireland	-	No response received to date	
Irish Peatland Conservation Council	-	No response received to date	
Irish Raptor Study Group	-	No response received to date	
Irish Red Grouse Association	-	No response received to date	
Irish Sports Council	-	No response received to date	
Údarás na Gaeltachta	-	No response received to date	

Consultee	Scoping Response Date	Scoping Response	rEIAR Chapter
Waterways Ireland	-	No response received to date	

2.4.3 Other Consultations - Telecommunications

As part of the early constraints study undertaken in the early design stages, telecommunications bodies were contacted, and the responses set out in Table 2-5 below received. Further analysis on Telecommunications in the context of the Cleanrath wind farm development is provided in Chapter 14 (Material Assets).

Table 2-4: Telecommunications Scoping Responses

Consultee	Date of response	Response received
Eir	15.05.2020	The development will have no impact on the Eir transmission service network.
2RN (formerly RTE Transmission Network Ltd)	11.05.2020	2RN notes that as there is a reduction of turbines and their location has not changed, the existing assessment and accompanying protocol between 2rn and the Developer still stands.
Three Ireland	25.05.2020	Three confirms that there are no objections or concerns relating to it, nor to the retention of the existing turbines at this location.
Airspeed Communications	-	No response received to date
Broadcasting Authority of Ireland	-	No response received to date
BT Communications Ireland	-	No response received to date
ESB Telecoms	-	No response received to date
Imagine Group (IG)	-	No response received to date
Ripplecom	-	No response received to date
Tetra Ireland Communications Ltd.	-	No response received to date
TG4	-	No response received to date
Towercom	-	No response received to date
Viatel Ireland Ltd	-	No response received to date
Virgin Media Ireland	-	No response received to date
Vodafone Ireland Ltd	-	No response received to date

2.4.4 Pre-Planning Meetings

No specific or formal pre-planning meetings were held with the planning authority in relation to the substitute consent application, however, engagement was held prior to preparing the previous planning application for the Cleanrath wind farm Development.

2.4.4.1 Cork County Council Engagement

Engagement with Cork County Council in the form of a pre-application consultations were undertaken for the 2011 application, and again prior to the lodgement of Pl Ref. 15/6966. The last pre-planning meeting in this regard being held in December 2015. Following the Boards grant of permission issuing engagement with the Planning Authority was carried out during the condition compliance phase of the Cleanrath wind farm development.

While the design team advised the Planning Authority of the pending substitute consent process and advised that site inspections could be facilitated as required, no further discussions or pre-planning meetings were carried out with the Planning Authority prior to lodging the substitute consent application.

2.4.5 Community Consultation

Engagement with the public, adjacent residents and local public representatives was undertaken as part of the preparation of the EIS submitted to Cork County Council under Pl Ref. 15/6966 (a full public information event was held in the Mills Inn, Ballyvourney, Cork on the 16th of December 2015). Following that the community were fully engaged in the planning process that was undertaken as part of that application as evidenced in the third party participation in the application process.

Following the grant of permission and prior to commencement of development the project was discussed with a number of residences immediate to the Cleanrath wind farm development to advise of the construction process. During the construction period the construction team continued to engage with the local community to advise on the relevant construction stages, progress, deliveries and update as required.

A Community Liaison Officer (CLO) was appointed to the project through construction and into the operational phase of the Cleanrath wind farm development. The CLO continues to engage with residents to provide information on the current status of the site and the potential resumption of operations. As the site entered the operational phase discussions were held with residents in relation to potential noise and shadow flicker, and more recently the CLO called to close neighbours to advise of his role and reiterate his availability should they require any further information, updates or engagement.

The CLO has also engaged with numerous groups, societies and organisations in the community in order to discuss the potential community gain benefits associated from the Cleanrath wind farm development. In this regard the first phase of the agreed community benefit scheme has been distributed as commissioning has been carried out (initial contributions of in excess of approx. €100,000 have already been allocated). The CLO will continue to engage with the local community throughout this process and throughout the operational lifetime of the Cleanrath wind farm development.

2.5 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 document) 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.

The various elements considered to constitute the Cleanrath wind farm development for the purposes of the assessments contained in this document have been set out in Section 2.3.1 above

2.5.1 Methodology for the Cumulative Assessment of Projects

To gather a comprehensive view of cumulative impacts on the above environmental considerations and to inform the rEIAR process being undertaken by the consenting authority, each relevant chapter within this document addresses the potential for cumulative effects to arise, where appropriate.

The potential cumulative impacts with other relevant development has been carried out with the purpose of identifying what influence the development has had, or potentially could have, on the surrounding environment when considered cumulatively and in combination with relevant permitted, proposed and constructed projects and other landuses in the vicinity of the site.

The cumulative impact assessment of projects has three principle aims:

- To establish the range and nature of existing projects within the cumulative impact study area of the Cleanrath wind farm development;
- To summarise the relevant projects which have a potential to create cumulative impacts; and
- To identify the projects that hold the potential for cumulative interaction within the context of the subject grid connections and discard projects that will neither directly nor indirectly contribute to cumulative impacts.

Assessment material for this cumulative impact assessment was compiled on the relevant developments within the vicinity of the Cleanrath wind farm development. The material was gathered through a search of relevant online Planning Registers, reviews of relevant EIAR documents, planning application details and planning drawings and served to identify past and future projects, their activities and their environmental impacts.

2.5.2 Projects Considered in Cumulative Assessment

The projects considered as part of the cumulative impact assessment, and for which all relevant data was reviewed, include Derragh Wind Farm, the permitted electricity transmission infrastructure at Grousemount and Coomataggart and those permissions described above in Tables 2-2 and 2-3 above, where relevant.

Derragh Wind Farm & Grousemount / Coomataggart Substation

Potential cumulative effects arising from the Cleanrath wind farm development with regard to Derragh Wind Farm (ABP PL04.245082, & Pl. Ref. 17/5126), as well as the Coomataggart 110 kV substation, in Grousemount County Kerry (Pl. Ref. 15/262) have been fully considered in the subsequent chapters of this rEIAR.

Other Wind Turbines

There are a large number of wind farms located within a 20-kilometre radius of the Cleanrath wind farm development, as identified previously in this Chapter (Section 2.4.5 refers). Any cumulative affects arising are considered in the relevant chapters of this rEIAR.

Other Developments and Landuses

The review of the Cork County Council and Kerry County Council planning register documented relevant general development planning applications in the vicinity of the Cleanrath wind farm development, most of which relate to the provision and/or alteration of one-off rural housing and agriculture-related structures, as described previously above (Sections 2.4.3 and 2.4.4 refer). These applications have also been taken account in describing the baseline environment and in the relevant assessments.

Furthermore, the cumulative impact assessments carried out in each of the subsequent chapters of this rEIAR consider all potential significant cumulative effects arising from all land uses in the vicinity of the Cleanrath wind farm development. These include ongoing agricultural practices, forestry operations (including replanting) and drainage/maintenance works/programmes. Overall the Cleanrath wind farm

development has been designed to mitigate impacts on the environment and a suite of mitigation measures is set out within the rEIAR. The mitigation measures set out in this rEIAR have been developed to ensure that significant cumulative affects do not arise during the construction, operational or decommissioning phases of the Cleanrath wind farm 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 rEIAR.