

## 4. POLICY & PLANNING CONTEXT

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### 4.1 INTRODUCTION

Renewable wind energy has developed in response to European Union policies and Directives and the road map set out by the EU towards achieving targeted reductions in greenhouse gas emissions. The EU requirements have in turn been integrated into national policy with clear targets set for the energy sector as to the level of penetration of renewable energy into the overall energy mix for the country to be achieved by 2020. Wind energy is recognised nationally as the option most likely to contribute maximally towards achieving these targets, which are essential to meet the requirements of Ireland's national climate change strategy. The Grousemount development is fully in line with national, regional and county development policies and guidelines.

When operational, the development, will contribute significantly to a reduction in Ireland's greenhouse gas emissions.

### 4.2 ENERGY POLICY – EUROPEAN CONTEXT

#### 4.2.1 *White Paper on Renewables*

Development of renewable energy has been a central aim of EU energy policy for some time and, as a first step towards a strategy for renewables, the EU adopted a Green Paper in November 1996 that sought views on setting an indicative objective of 12% for the contribution by renewable sources of energy to overall energy consumption by 2010.

This target was then established in 1997 in the EU Commission's Energy for the Future: Renewable Sources of Energy - White Paper for a Community Strategy and Action Plan. The purpose of the White Paper was to contribute, by promoting renewable energy, to the achievement of overall energy policy objectives: security of supply, environment and competitiveness, and to improve and reinforce environmental protection and sustainable development.

The overall EU target of doubling the share of renewables by 2010 implied that Member States had to encourage the increase in renewable energy sources according to their own potential. The setting of targets was recognised as providing a stimulus to efforts towards increased exploitation of available potential and an important instrument for attaining reductions in carbon dioxide (CO<sub>2</sub>) emissions, decreasing energy dependence, developing national industry and creating jobs.

#### 4.2.2 *Green Paper on Security of Supply*

Amongst the tools supporting the EU strategy and instruments for promoting renewable energy sources was its Green Paper on the security of energy supply from November 2000. EU resources are limited with respect to reserves of oil and gas and costs of coal production are a multiple of the world market price. Correspondingly, there is a potential abundance of renewables.

The aim was to put forward proactive strategies to attenuate, if not counteract, the dependence on energy supplies. Future priorities include managing the dependence on supply by development of less polluting energy sources.

New and renewable forms of energy are the first options for action in relation to security of supply, the environment and local populations.

### 4.2.3 Renewable Energy Directives 2001 & 2009

The EU Renewables Directive 2001/77/EC was the first time a legislative text aimed at promoting the production of energy from renewable sources. It obliged Member States to set indicative targets and committed Ireland to the production of 13.2% of electricity demand from renewable energy sources by 2010. Based on this target, the Irish Government introduced a range of measures to increase the deployment of renewables electricity.

Outlining a long-term strategy the EU Commission's Renewable Energy Roadmap<sup>2</sup> called for a mandatory target of a 20% share of renewable energies in the EU's energy mix by 2020. The target was endorsed by EU leaders in March 2007.

The Commission's Energy 2020 Strategy<sup>3</sup> highlights how EU infrastructure and innovation policies are supporting the renewable energy sector's development, ensuring that renewable energy sources and technologies become economically competitive as soon as possible, thus supporting the growth of renewable energy to achieve our goals.

The EU Renewables Directive 2009/28/EC, which amended and subsequently repealed Directives 2001/77/EC and 2003/30/E, requires each Member State to increase its share of renewable energies - such as solar, wind or hydro - in the bloc's energy mix to raise the overall share to 20% by 2020. To achieve the objective, every nation in the 27-member bloc is required to increase its share of renewables by 5.5% from 2005 levels, with the remaining increase calculated on the basis of per capita gross domestic product (GDP).

Ireland's share of renewables is required to increase to 16% by 2020. The Directive set a series of interim targets, known as 'indicative trajectories', in order to ensure steady progress towards the 2020 targets. Each Member State has flexibility to set targets across the heating, transportation and electricity sectors to meet the overall renewable energy targets, subject to a minimum of 10% of energy use in transport being renewable sourced by 2020.

The Renewable Energy Directive provides a strong and stable regulatory framework for the development of the renewable energy sector in Europe.

#### 4.2.1 European Commission Energy Roadmap 2050

In December 2011, the European Commission adopted the Energy Roadmap 2050<sup>4</sup>, which commits the EU to reducing greenhouse gas emissions to 80-95% below 1990 levels by 2050 in the context of necessary reductions by developed countries as a group. This implies that Europe's energy production will have to be almost carbon-free in order to reach the Commission's latest target over the period to 2050.

Existing EU policies and measures to achieve the Energy 2020 goals are ambitious and will continue to deliver beyond 2020. However, they will achieve only less than half of the decarbonisation goal set for 2050.

The Energy Roadmap 2050 examines seven scenarios, two "Current Trend" and five "Decarbonisation", that could reduce emissions while ensuring that each country retains its security of supply and competitiveness.

<sup>2</sup> Commission Communication of 10 January 2007: Renewable Energy Road Map. Renewable energies in the 21st century: building a more sustainable future [COM(2007) 84]

<sup>3</sup> COM(2010)639/3 Energy 2020: A strategy for competitive, sustainable and secure energy

<sup>4</sup> Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions, Energy Roadmap 2050

The high renewable energy sources decarbonisation scenario would see renewable energy systems with a 75% share of final energy consumption by 2050 and 97% of electricity consumption indicative that renewable energy will be central to energy policy going forward.

#### 4.2.2 Climate Change

Tackling climate change is a key element of the European Commissions energy road map going forward to 2050. Climate change is now an accepted fact and is evidenced by increasing temperature, changing weather patterns, glacial melting rates and sea level rise. Monitoring has shown that the atmospheric concentration of greenhouse gases, including CO<sub>2</sub>, is increasing concerns regarding the effect these may have on the earth's climate as a result of an enhanced greenhouse effect. Despite limited remaining uncertainties, scientists internationally are of the view that the balance of evidence suggests there is a discernible human influence on the global climate as a result of the build-up of CO<sub>2</sub> and other greenhouse gases in the atmosphere.

In response to international concerns, under the UN Framework Convention on Climate Change (UNFCCC), industrialised countries were to stabilise their greenhouse gas emissions at 1990 levels by the year 2000. The EU met this commitment. The Kyoto Protocol to the UNFCCC committed the 15 countries that were EU members at the time to reduce their collective emissions in the 2008-2012 period to 8% below 1990 levels.

The level of the EU 27's greenhouse gas emissions has fallen by 15 % from 5,590 Mt in 1990 to 4,720 Mt in 2010.

The EU has also offered to increase its emissions reduction to 30% by 2020, on condition that other major emitting countries in the developed and developing worlds commit to do their fair share under a future global climate agreement. The Copenhagen Accord reached in December 2009 represents a step towards such an agreement. The EU is pressing for a global deal that is ambitious, comprehensive and legally binding.

Achieving the targets aspired to in the 2050 Roadmap would reduce the emission of greenhouse gases by 80 – 95% by mid century.

In the National context the Environmental Protection Agency also highlights its concerns around climate change<sup>5</sup>;

What is distinctive about the current period of global warming, compared to previous cycles of climate change, is the extent and rate of change, which exceeds natural variation. The impacts of climate change present very serious global risks and threaten the basic components of life, including health, access to water, food production and the use of land. As the earth gets warmer the damage from climate change will accelerate.

In its report *The EPA & Climate Change*<sup>6</sup> the EPA also indicates that

*Whilst Ireland can be justifiably proud of our scientific and technological achievements, Ireland's greenhouse gas emissions per person are amongst the highest on the planet and the 2nd highest of the EU 27 countries. The reduction in greenhouse gas emissions in Ireland and other parts of the globe which is primarily due to the global financial crisis has shown that there is still a strong link between economic growth and emissions.*

The report identifies Agriculture (at 29.2%) as the largest sector in the economy

<sup>5</sup> <http://www.epa.ie/whatwedo/climate/>

<sup>6</sup> The EPA & Climate Change, Responsibilities, Challenges and Opportunities, 2011 Update

contributing to greenhouse gas emissions with the energy sector being the next most significant at 21%. The EPA foresees that Ireland will face a significant challenge in achieving its targets under the 2020 obligations should increases in agricultural and transport emissions occur.

The National Climate Change Strategy 2007 – 2012 also forecast's annual emissions savings of CO<sub>2</sub> will be achieved on foot of the Government's targets being achieved, see Section 5.3.4 below.

#### 4.2.3 Summary

The development of renewable energy, particularly energy from wind, water, solar power and biomass, is a central aim of the European Commission's energy policy. There are several reasons for this:

- Renewable energy has an important role to play in reducing CO<sub>2</sub> emissions, which is a major Community objective.
- Increasing the share of renewable energy in the energy balance enhances sustainability. It also helps to improve the security of energy supply by reducing the Community's growing dependence on imported energy sources.
- Renewable energy sources are expected to be economically competitive with conventional energy sources in the medium to long term.

It is evident that this proposed wind farm development at Grousemount is strongly supported by policy at European level.

### 4.3 ENERGY POLICY – NATIONAL CONTEXT

It is Government Policy to promote the development of renewable energy sources. Sustainable energy policy includes maximising the efficiency of generation and emphasising the use of renewable resources.

Ireland's Green Paper on Sustainable Energy was launched in September 1999, the policy indicating how Ireland will progress towards meeting its energy requirements in an environmentally and economically sustainable way. It concentrated on Ireland's need to limit energy-related carbon dioxide (CO<sub>2</sub>) emissions under the Kyoto Protocol. An additional major justification of this strategy on renewable energy is to reduce Irish dependence on imported fuels for the purpose of security of supply.

The Renewable Energy Strategy Group was formed in November 1999 on foot of the Green Paper. In its report Strategy for Intensifying Wind Energy Development the Group outlined a strategy of promoting large-scale wind energy projects to achieve efficient deployment of wind energy.

In the National Spatial Strategy 2002 – 2020, it is stated as follows:

*..in economic development the environment provides a resource base that supports a wide range of activities that include agriculture, forestry, fishing, aqua-culture, mineral use, energy use, industry, services and tourism. For these activities, the aim should be to ensure that the resources are used in sustainable ways that put as much emphasis as possible on their renewability. Renewable Energy Development - 2006*

#### 4.3.1 Renewable Energy Development - 2006

The Department for Communications, Marine and Natural Resources holds responsibility

for renewable energy policy in Ireland. The Renewable Energy Development Group, established in May 2004 considered the future options to develop increased use of renewable energy in the electricity market to 2010 and beyond. Its Renewable Energy Development 2006 presented an overview of policy and strategy evolution, stating as follows:

Renewable energy deployment fits with a range of policy imperatives across many areas. It has clear environmental benefits and helps meet our international environmental commitments. It reduces reliance on imported fuels, reducing dependence and bringing associated economic benefits.

A conclusion was as follows:

*A sustainable energy economy depends on both efficiency in the supply and consumption of energy and in the substantial deployment of renewable sources.*

#### 4.3.2 Energy White Paper – 2007

The Government launched its Energy White Paper<sup>7</sup> in March 2007. The White Paper describes the actions and targets for the energy policy framework out to 2020, to support economic growth and meet the needs of all consumers. It is set firmly in the global and European context which has put energy security and climate change among the most urgent international challenges.

Sustainability is at the heart of Government's energy policy objectives. The Paper outlines that the challenge of creating a sustainable energy future for Ireland will be met through a range of strategies, targets and actions to deliver environmentally sustainable energy supply and use. The underpinning Strategic Goals include accelerating the growth of renewable energy sources, with key targets as follows:

**Table 5.1: National Renewable Energy Targets**

Year	Criterion	Target
2010	Gross electricity consumption from renewable sources	15 %
2020	Gross electricity consumption from renewable sources	40 %

The latter target for consumption coming from renewables by 2020 was revised upwards in October 2008 from 33%.

#### 4.3.3 National Renewable Energy Action Plan 2010

The 2010 Plan implements EU Directive 2009/28/EC on the promotion of the use of energy from renewable sources, which sets out agreed new climate and energy targets: 20-20-20 by 2020 - 20% reduction in greenhouse gas emissions, 20% energy efficiency and 20% of the EU's energy consumption to be from renewable sources. The Plan has set a target of 40% electricity consumption from renewable sources by 2020.

The Government's 40% renewable penetration target for 2020 is estimated to be equivalent to about 5,100 MW of installed renewable capacity. At the end of December 2014, Ireland's installed capacity was approximately 2,494 MW, comprising 2,211 MW of installed wind generation, 237 MW of hydro power and 46 MW of smaller renewable sources. This indicates that significant further development is required.

<sup>7</sup> Delivering A Sustainable Energy Future For Ireland; Department of Communications, Marine and Natural Resources (2007)

The Government is evidently committed to delivering a significant growth in renewable energy as a contribution to fuel diversity in power generation. Wind energy will provide the pivotal contribution to achieving this target.

#### 4.3.4 Strategy For Renewable Energy, 2012 – 2020

In May 2012 the Department of Communications, Energy and Natural Resources published the Government's Strategy for Renewable Energy, 2012 – 2020.

The Strategy notes as follows:

*The Government firmly believes that the development and deployment of Ireland's abundant indigenous renewable energy resources, both onshore and offshore, clearly stands on its own merits in terms of the contribution to the economy, to the growth and jobs agenda, to environmental sustainability and to diversity of energy supply. In addition, and in support of the Government's own energy policy objectives, Ireland is committed to delivering on its obligations under European Union Energy Policy which include the binding national target for renewable energy by 2020.*

This document sets out five 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 explains as follows:

*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. In addition to exporting electricity from renewables to the UK and continental Europe, Ireland has the opportunity to become a recognised world leader in the testing of next generation offshore renewable energy equipment.*

#### 4.4 REGIONAL PLANNING GUIDELINES

The Regional Planning Guidelines for the South West Region, 2010 - 2022 acknowledge that

*The south west has considerable potential for the generation of electricity from sustainable renewable resources such as wind and wave.*

The objectives (RTS-09) for the South West Region relating to Energy and Renewable Energy are described below:

*It is an objective to facilitate the sustainable development of additional electricity generation capacity throughout the region 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.*

*It is an objective to ensure that future strategies and plans for the promotion of renewable energy development and associated infrastructure development in the Region will promote the development of renewable energy resources in a sustainable manner. In particular, development of wind farms shall be subject to:*

- *the Wind Energy Planning Guidelines*
- *consistency with proper planning and sustainable development*
- *criteria such as design and landscape planning, natural heritage, environmental and amenity considerations,*

It is an objective of the guidelines to promote the sustainable provision of renewable energy from tidal, wave and pumped storage developments together with bioenergy resources, as critical elements of the long-term secure energy supply throughout the region.

**4.5 PLANNING POLICY – KERRY COUNTY DEVELOPMENT PLAN**

Under Part II Chapter 1 of the Local Government Planning and Development Act, 2000, Planning Authorities are obliged to make Development Plans for their functional area every six years. The Kerry County Development Plan 2015 – 2021, which is effective since March 2015, is the framework document for guiding and controlling future developments in the county.

The Development Plan consists of a written statement and maps and is required to include objectives that include provision or facilitating the provision of infrastructure, including transport, energy and communication, water supplies, and waste recovery and disposal.

Objectives for Renewable Energy are as follows:

<b>Objective EP-11</b>	Implement the Renewable Energy Strategy for County Kerry (KCC 2012)
<b>Objective EP-12</b>	Not to permit the development of windfarms in areas designated “open to consideration” in the Tralee and Listowel Municipal Districts until 80% of the turbines with permissions in those areas, on the date of adoption of the Plan, have either been erected or the relevant permission has expired or a combination of both and the cumulative affect of all permitted turbines in the vicinity of the proposal has been fully assessed and monitored.

The proposal for Grousemount Wind Farm is fully in compliance with the above Objectives.

**Renewable Energy Strategy**

To facilitate the sustainable growth of renewable energies Kerry County Council prepared and adopted a Renewable Energy Strategy in November 2012.

The previous strategy had been in place from 2003 to 2012 as adopted in the Kerry County Development Plans 2003-2009 and 2009-2015. That strategy had been successful in facilitating renewable energy development, particularly wind, in a manner that was consistent with the proper planning and sustainable development of the county. However, it was considered that, given the significant changes in renewable energy technologies and in public policy, new policy responses were required to facilitate and manage the development of renewable energy.

With regard to Wind Energy, the Plan states as follows:

*It is recognised that wind energy is best placed to achieve national targets for the consumption of electricity from renewable energy and it is an objective of the*

*planning authority to continue to support the development of wind energy. To this end this strategy identifies appropriate locations for the development of wind energy and sets out the criteria and development management standards which will be used in assessing proposals for wind development.*

*The planning authority recognises that of the many types of renewable energy onshore wind development is best placed to deliver significant levels of renewably sourced electricity in the short to medium term. This Strategy has been developed to build on the success of the County’s current strategy and to more closely align the County’s wind generation policies to existing wind energy and infrastructural resources. It is an objective of this strategy to achieve the following:*

- To secure the maximum potential for the generation of electricity at appropriate locations from wind energy resources that is consistent with proper planning and sustainable development of the county.
- To identify key areas where there is wind energy potential and where, subject to criteria such as design and landscape planning, natural heritage, environmental and amenity considerations, wind energy development can be deployed.
- To set out the specific criteria for wind energy development that the planning authority will apply when considering the merits of any wind development proposal.
- To provide a sustainable policy framework for the development of small-scale wind developments and single use turbines.

Having assessed various environmental, landscape, technical and economic criteria, three types of wind deployment zones have been identified namely; Strategic Site Search Areas, Open-to-Consideration and Unsuitable.

The Grousemount site lies with the area categorised as Open-to-Consideration, 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.*

The Strategic Objectives for the Open-to-Consideration area are as follows:

<b>Objective WE 6</b>	Proposals shall demonstrate conformity with existing and approved wind farms to avoid visual clutter and how they have taken regard of potential cumulative effects, where appropriate.
<b>Objective WE 7</b>	Projects shall be designed and developed in line with the Wind Energy Development Guidelines, Guidelines for Planning Authorities (DoEHLG, 2006) and any update of these guidelines in terms of siting, layout and environmental studies. Any proposed development of on-shore wind adjacent to Natura 2000 sites will have to ensure a suitable buffer zone exists between the development and the Natura 2000 boundary. The Stacks to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Site Code 004161) will require a



	buffer zone of at least 250 m between the SPA boundary and operating wind turbines.
<b>Objective WE 8</b>	Applications shall be accompanied by a Natura Impact Statement under Article 6 of the Habitats Directive if the site is located in close proximity to a (candidate) Special Area of Conservation or Special Protection Area or if the site is within the catchment of a (candidate) Special Area of Conservation. Only proposals where a Habitats Directive Article 6 Assessment concludes that there will be no adverse effects on the integrity of Natura 2000 sites shall be permitted.
<b>Objective WE 9</b>	All applications must comply with the objectives and development standards of this strategy and the provisions of the Kerry county Development Plan 2009-2015. 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.
<b>Objective WE 10</b>	Applications for wind development shall be accompanied by a technical assessment in relation to the slope stability, landslide susceptibility of the development site and the proposed project. This assessment shall incorporate slope stability mapping and groundcover assessment in the context of potential cumulative effects arising from multiple developments and consider potential impacts on slope stability in relation to climate change impacts, particularly flash floods and changing weather conditions.

The proposal for Grousemount Wind Farm is fully in compliance with the above Objectives.

The Wind Deployment Zones are illustrated on Map 6, which is presented herein as Figure 4.1.

The Council’s development management policies and standards relating to the design, layout and ancillary development of wind farms are also outlined in the Renewable Energy Strategy 2012.

**4.6 CONCLUSIONS**

Ireland, like many modern economies, is facing a wide range of challenges in energy policy due to a number of factors, including: rising prices of primary inputs (especially fossil fuels), energy and fuel price risk and volatility, energy supply security, greenhouse gas emissions, non-greenhouse gas emissions, rising demand, the requirement to invest / replace grid and infrastructure, and the creation of energy market competition and a single EU market. With these challenges to the fore, renewables policy is also an important issue for Ireland.

Within the portfolio of possible renewables, onshore wind power presents a potential means for Ireland to increase the amount of electricity that is produced by emission-free power generation capacity. Its potential contribution to achieving Irelands stated renewable energy target for 2020 is set out in Ireland’s Renewable Energy Action Plan, with binding targets committed to under the promotion of the renewable energy directive.

Ireland has an abundant wind energy resource and it is clear that there is strong support

at multiple levels for the development of renewable sources of energy, such as will result from Grousemount Wind Farm.

Over the past decade, energy and environment policies have been adopted and realigned to reflect new concerns at national and international levels, to address the new realities in these areas and provide a focus for future actions. These are also reflected in the National Renewable Energy Strategy, the Regional Planning Guidelines and the policies of Kerry County Council.

The development of the Grousemount Wind Farm (combining the previously approved Barnastooka and Grousemount Wind Farms) will contribute significantly to meeting the commitments of the Government's National Renewable Energy Plan (NREAP) obligation under the renewable energy Directive 2009/28/EC. It is fully in line with the Regional Planning Guidelines and Kerry County Council's energy and renewable energy policies and objectives set out in the current County Development Plan, and is located within an area Open to Consideration for wind development as designated by Renewable Energy Strategy. The development will also contribute significantly to national greenhouse gas emission reduction and will contribute towards achieving Ireland's national target of renewable electricity generation.

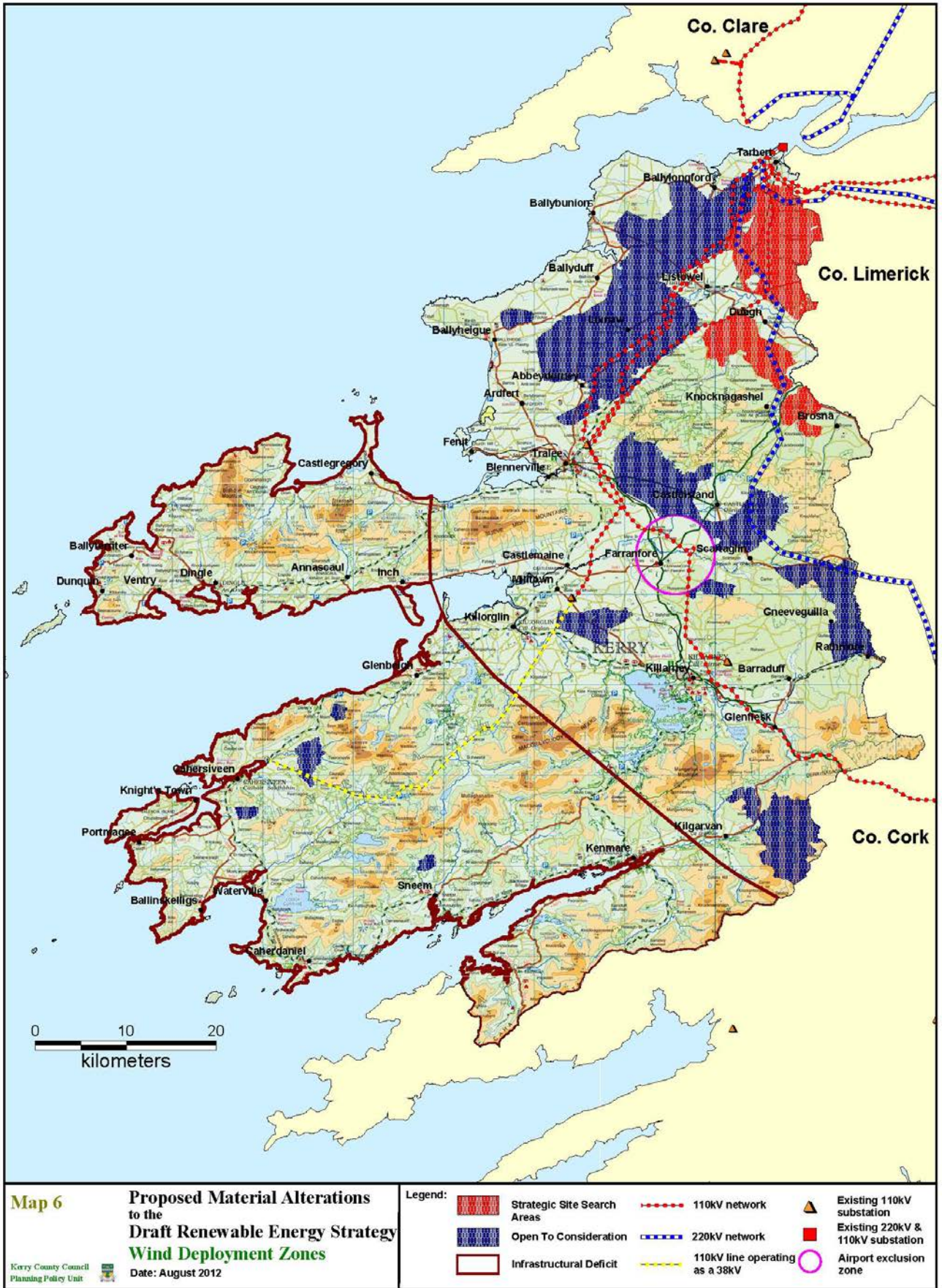


Figure 4.1: Wind Development Zones, Co. Kerry