

5 POLICY & PLANNING

5.1 INTRODUCTION

This section reviews the policy and planning context relating to the development of renewable energy in Ireland within which the proposed Phase 1 and Phase 2 of the Oweninny wind farm is proposed for development. 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 requirements of the EU 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 Oweninny Phase 1 and Phase 2 proposed development is fully in line with national, regional and county development policies and guidelines and will be located in a priority area for wind development identified in the Mayo Renewable Energy Strategy 2011 - 2020. The development, when operational, will contribute significantly to a reduction in Ireland's greenhouse gas emissions.

5.2 ENERGY POLICY – EUROPEAN CONTEXT

EU renewable energy policy is considered relatively young, having started with the adoption of the 1997 White Paper. It was initially driven by the need to de-carbonise the energy sector and address growing dependency on fossil fuel imports from politically unstable regions outside the EU. However, the focus has shifted in the intervening period from the promotion of renewable energy through indicative targets for the electricity and transport sectors to the definition of legally binding targets supported by a comprehensive legislative framework. More recently focus has been on a reorientation of European energy infrastructure policy that facilitates renewable energy growth.

5.2.1 White Paper on Renewables

Development of renewable energy has been a central aim of EU energy policy for some time with the first step towards a strategy for renewables being the adoption by the EU of a Green Paper in November 1996. This 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 subsequently 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 carbon dioxide (CO₂) emissions reductions, decreasing energy dependence on fossil fuels, developing national industry and creating jobs.

5.2.2 Green Paper on Security of Energy Supply

Amongst the tools supporting the EU strategy and instruments for promoting renewable energy sources is its Green Paper on the security of energy supply from November 2000¹². 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 imported 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.

5.2.3 Renewable Energy Directives 2001 & 2009

The EU Renewables Directive 2001/77/EC adopted in 2001 introduced for the first time a legislative text aimed at promoting the production of energy from renewable sources. It obliged Member States to set indicative targets. It 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 in the production of electricity.

Outlining a long-term strategy the EU Commission's Renewable Energy Roadmap¹³ 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 Strategy¹⁴ highlights how EU infrastructure and innovation policies are supporting the renewable energy sector's development, ensuring that renewable

¹² European Union, Green paper, Towards a European Strategy for the security of energy supply, COM 2000 (769), November 2000

¹³ Commission Communication of 10 January 2007: "Renewable Energy Road Map. Renewable energies in the 21st century: building a more sustainable future" [COM(2007) 06] 84

energy sources and technologies become economically competitive as soon as possible, thus supporting the growth of renewable energy to achieve our goals.

The EU Renewable Energy Directive 2009/28/EC, which amended and subsequently repealed Directives 2001/77/EC and 2003/30/EC, 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.

5.2.4 European Commission Energy Roadmap 2050

On 15 December 2011, the European Commission adopted the Communication "Energy Roadmap 2050"¹⁵. This roadmap 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 next 37 years.

Existing EU policies and measures to achieve the Energy 2020 goals and the Energy 2020 strategy 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.

¹⁴ COM(2010)639/3 Energy 2020: A strategy for competitive, sustainable and secure energy

¹⁵ 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.

Ireland's Energy Minister Pat Rabbitte is quoted by Energy Ireland as saying that the roadmap “shows the importance of a fundamental shift away from fossil fuels” and added that Ireland’s “abundance of onshore and offshore wind resources” means it is “well placed to feature prominently in the euro-wide energy sector.”

5.2.4.1 Updates on EU Policy and Commitments

Further to the Renewable Energy Directives binding targets to 2020, the European Commission acknowledged the growing concerns and clear message of the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 5 (AR5)¹⁶. In October 2014 EU leaders agreed a 2030 climate & energy framework that will see a domestic EU greenhouse gas reduction target of at least 40% compared to 1990 to drive continued progress towards a low carbon economy in the European Union. To achieve this target it is estimated that:

- the sectors covered by the EU Emission Trading Scheme (ETS), including energy, would have to reduce emissions by 43% compared to 2005.
- emissions from the non-ETS sectors would have to reduce by 30% compared to 2005 levels. The effort needed to meet these targets will be shared equitably between Member States.

In addition, an EU-level 2030 target for renewable energy is proposed with, at least, 27% of EU energy consumption to come from renewable sources. This renewable energy target does not, however, place binding targets on Member States and is to be reached by the EU as a whole. Renewable energy will therefore play a key role in the transition towards a competitive, secure and sustainable energy system for the EU.

In relation to energy efficiency, the European Commission proposed a 30% energy savings target for 2030, following a review of the Energy Efficiency Directive. The European Council, however, endorsed an indicative target of 27% to be reviewed in 2020 having in mind a 30% target.

¹⁶ IPCC, 2013: Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

The Environment Council of the EU approved the EU's intended nationally determined contribution in March 2015 which is to achieve at least 40% domestic reduction in greenhouse gas emissions compared to 1990 levels by 2030. This translates the agreement by EU leaders in October 2014, referred to above, on the EU 2030 climate and energy framework.

A new global international climate change agreement is currently being negotiated under the UN Framework Convention on Climate Change (UNFCCC). It is expected that this will be agreed by the 21st Conference of Parties (COP21) which will be held in Paris in December 2015. Such agreement will come into effect in 2020. The 40% reduction in greenhouse gases agreed by the EU Leaders is the EU proposed contribution to this new international agreement.

5.2.5 Climate Change

The Inter-Governmental Panel on Climate Change (IPCC) report, “Climate Change 2013: The Physical Science Basis”, referred to as the Fifth Assessment Report (AR5), presents clear and robust conclusions in a global assessment of climate change science. The report clearly indicates with 95 percent certainty that human activity is the dominant cause of observed warming since the mid-20th century. The Working Group 1 Report Approved for Policy Makers has also been published in 2013 and summarises the main findings of the AR5. The AR5 Report confirms that warming in the climate system is unequivocal, with many of the observed changes unprecedented over decades to millennia: warming of the climate system is occurring with increased atmospheric and sea temperatures, reduction in snow and ice cover, sea level rise and increasing greenhouse gas concentration in the atmosphere. Each of the last three decades has been successively warmer at the Earth's surface than any preceding decade since.

Tackling climate change is a key element of the European Commission's energy road map going forward to 2050.

Historically, 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.

Recent statistics show that the level of the EU 28's greenhouse gas emissions had fallen to 4.7 Billion tons by 2012, a 17.9 % compared to 1990¹⁷, see Figure 5-1.

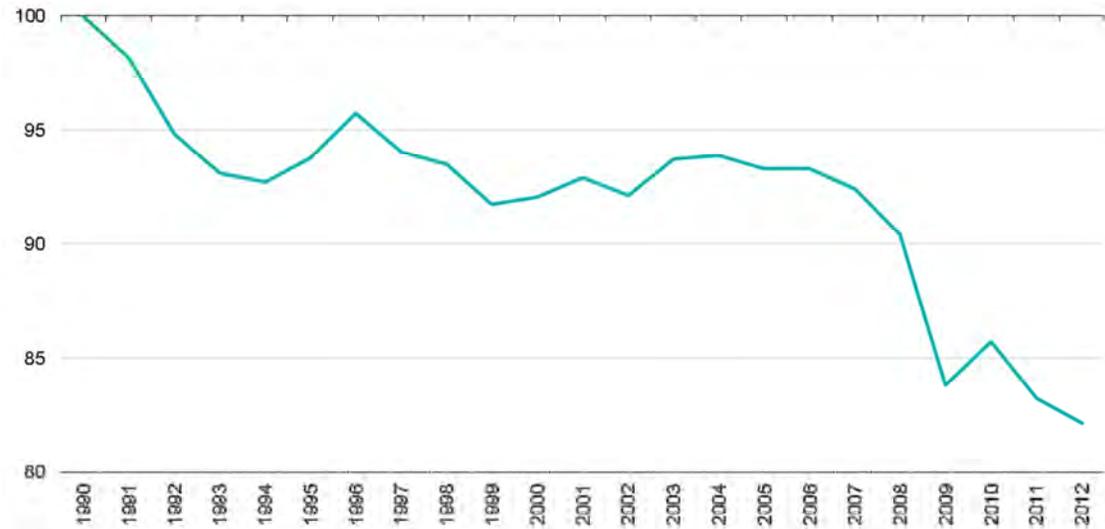


Figure 5-1: Greenhouse gas emissions (including international aviation and excluding LULUCF) trend, EU-28, 1990–2012

(Index 1990=100)

Source: Eurostat (online data code: env_air_gge), European Energy Agency, European Topic Centre on Air and Climate

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 Irish Environmental Protection Agency also highlights its concerns around climate change¹⁸ and Ireland's ability to achieve its targets:

“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”.

¹⁷ Eurostat, Greenhouse Gas Emission Statistics 2015

¹⁸ <http://www.epa.ie/whatwedo/climate/>

In its report “Ireland’s Provisional Greenhouse Gas Emissions”¹⁹ the EPA also indicates that *For 2013, total national greenhouse gas emissions are estimated to be 57.81 million tonnes carbon dioxide equivalent (Mt CO₂ eq) which is 0.7 % lower (or 0.41 Mt CO₂ eq) than emissions in 2012 (58.22 Mt CO₂ eq). This reverses the 1.0% increase in emissions reported for 2012.*

Agriculture remains the single largest contributor to the overall emissions at 32.3% of the total. Energy and Transport are the second and third largest contributors at 19.6% and 19.1% respectively. The remainder is made up by the Industry and Commercial at 15.4%, Residential sector at 11.1% and Waste at 2.5%. Figure 2 shows the contributions from each of the sectors in 1990 and 2013.

The EPA’s 2015 Report on Ireland’s Greenhouse Gas Emission Projections 2014 – 2035²⁰ provides an updated assessment of Ireland’s progress towards achieving its emission reduction targets set down under the EU Effort Sharing Decision (Decision No 406/2009/EC) for the years 2013-2020. Although this report identifies key challenges in the non-emission trading sectors of agriculture, transport and heating it also predicts two possible scenarios for the energy sector as follows:

- *Under the With Measures scenario, total energy sector emissions are projected to increase by 11% over the period 2013 – 2020 to 13 Mt CO₂eq. The increase is driven by increased demand for electricity with coal-fired power generation being maintained and gas-fired generation increasing by over 20%. By 2020 22% of electricity generation is projected to come from renewable sources.*
- *Under the With Additional Measures scenario, total energy sector emissions are projected to decrease by 14% over the period 2013 – 2020 to 10 Mt CO₂eq. In this scenario, energy demand is lower than the With Measures scenario as a result of improved energy efficiency and also renewable energy is assumed to reach 40% penetration by 2020. The largest renewable energy contribution comes from wind, which is estimated to be significantly higher than in the With Measures scenario in terms of generation input.*

To achieve Ireland’s commitments to 2030 and to continue to decarbonise the economy to 2050 greenhouse gas reductions across all sectors must be achieved. This is in line with the EU Effort Sharing Decision (No. 206/2009) which requires all sectors to contribute to achieving emission reductions. The importance of achieving a 40% renewables penetration

¹⁹ EPA, Ireland’s Provisional Greenhouse Gas Emissions in 2013, 3rd December 2014

²⁰ EPA, Ireland’s Greenhouse Gas Emission Projections, 2014 – 2035, 18th May 2015.

in the energy sector is a key component of this, with wind energy contributing most significantly.

5.2.6 Summary

The development of renewable energy, particularly energy from wind, waver, 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 CO2 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 Oweninny is strongly supported by policy at European level.

5.3 ENERGY POLICY – NATIONAL CONTEXT

5.3.1 Policy Evolution

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 (CO2) 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 Development²¹' the Group

²¹ Renewable Energy Strategy Group (2000), Government of Ireland, Strategy for Intensifying Wind Energy Development, <http://www.dcenr.gov.ie/NR/rdonlyres/ADD4AF22-E434-403B-A3A4-87716C9EE7C0/0/RenewableEnergyStrategyGroupReport.pdf>

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.”

5.3.2 National Development Plan 2007 - 2013

The National Development Plan 2007-2013²² is the largest and most ambitious investment programme ever proposed for Ireland and it sets out the roadmap to Ireland’s future.

The Plan outlines a number of High Level Objectives that will guide investment priorities and allocations. These include environmental sustainability, whose promotion, including tackling climate change, is a key objective of the investment strategy in the Plan. Climate Change and Renewable Energy are two of the six identified areas in which investment under the Plan will make a major contribution to the protection and enhancement of the environment.

This Plan sets out objectives to stimulate renewable energy production and notes as follows:

“Ireland has significant renewable energy resources available but their large-scale exploitation continues to require support and intervention by policy makers because of the investment costs and risks entailed. This intervention is required across the three principal energy sectors: electricity, heat and transport and in the industrial, public, commercial and domestic sectors”.

“The proposed investments will considerably enhance environmental sustainability. Increased market penetration of renewable energy technologies in the electricity, heat and transport sectors will displace fossil fuels such as coal, oil, gas and peat. In the case of electricity, the 2010 target for renewable energy consumption has been increased to 15%”.

The Sustainable Energy Sub-Programme states that renewable energy measures will focus on achieving Government targets for renewable energy production and meeting policy goals with regard to competitiveness, environment, security of supply, R&D and the development of a sustainable All-Island energy market.

²² Transforming Ireland – A Better Quality of Life for All

In addition it notes as follows:

“Renewable energy measures will focus on achieving Government targets for renewable energy production and meeting policy goals with regard to competitiveness, environment, security of supply, R&D and the development of a sustainable All-Island energy market. The primary focus will be on the large-scale deployment of wind, the emerging potential and deployment of biomass and biofuels, preparatory action on ocean energy and deployment of other technologies such as solar and geothermal technologies. Deployment will be delivered through a range of supports including taxation, direct grant aid and other funding or support mechanisms;”

In the context of Regional Development the regional policy approach embraces the role of other smaller towns, villages and rural areas and states as follows:

Towns, villages and rural areas need to be supported in the development of new areas of economic activity such as: local value added enterprise activities; tourism; local enterprise; services; and renewable energy to both complement the surviving elements of a restructured agri-business/natural resource sector and provide new employment opportunities.

5.3.3 Renewable Energy Development - 2006

The Department for Communications, Energy 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.”

5.3.4 Energy White Paper – 2007

The Government launched its Energy White Paper 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.

The key targets as set out in Table 5.1 were set regarding renewable electricity.

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 Government’s 40% renewable penetration target for 2020 is estimated to be equivalent to about 4,000 MW of installed wind energy capacity in Ireland. According to the IWEA, installed capacity on the island of Ireland in April 2012 was approximately 2,055 MW, indicating that significant further development is required.

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.

5.3.4.1 Update on the Energy White paper of 2007 – the Green Paper 2014

In May 2014, the Department of Communications, Energy and Natural Resources published a new Green Paper on Energy Policy in Ireland. In the forward to the paper, the then Minister Pat Rabbitte stated

“Ireland faces significant inter-related challenges in relation to climate change, energy security and competitiveness. These can be addressed by transforming Ireland’s economy from one based on a predominantly imported fossil fuel to a more indigenous low carbon economy centred around energy efficiency, renewable energy and smart networks. This transformation lies at the heart of this Government’s energy policy”.

and

“Since the publication of the 2007 Energy Policy Framework, ‘Delivering a Sustainable Energy Future for Ireland’, the global, EU and Irish energy landscape has undergone profound change as new technologies unlock cleaner fuels, the world economy regains positive momentum, and addressing the threat of climate change becomes ever more critical. The significant changes in Ireland’s economic position mean that key assumptions supporting policy, as outlined in that White Paper, are no longer valid.

As the EU looks towards 2030 and 2050, it is timely to reflect on what has been achieved and to reorient Irish energy policy priorities towards the 2030 horizon. We must now rethink some of the key components of our energy policy”.

The Green Paper sets out the main developments in the Irish, European and global energy landscape since the Energy White Paper 2007, and identifies the major energy policy documents, strategies, plans and reports published since 2007. Recognising that energy is integrated into all sectors and areas of modern life and that many different themes and issues are relevant to the debate on Ireland’s future energy path the Green Paper proposes six energy policy priorities for consideration as follows:

- Priority 1: Empowering Energy Citizens
- Priority 2: Markets and Regulation
- Priority 3: Planning and Implementing Essential Energy Infrastructure
- Priority 4: Ensuring a Balanced and Secure Energy Mix

- Priority 5: Putting the Energy System on a Sustainable Pathway
- Priority 6: Driving Economic Opportunity

Some 1,200 submissions have been received and a subsequent round of focussed stakeholder engagement was undertaken. The submissions and comments received will help shape the governments' energy policy going forward towards a road map to decarbonisation by 2050.

5.3.5 National Climate Change Strategy 2007 - 2012

The National Climate Change Strategy (NCCS) 2007 – 2012 of April 2007²³ follows on from the first national strategy, which was published in 2000 and reviewed in 2002. It details the measures by which Ireland will meet its Kyoto 2008 - 2012 commitment. It also outlines how the measures will position Ireland for the post-2012 period.

With regard to renewable electricity production the NCCS states:

“electricity generation from renewable sources provides the most effective way of reducing the contribution of power generation to Ireland’s greenhouse gas emissions”.

It is forecast that an annual emissions savings of 3.26 Mt of CO₂ will be achieved on foot of the Government’s 33% target for 2020 and even larger savings will result from the revised renewables target of 40%. Oweninny wind farm, when fully operational, could lead to a reduction in CO₂ emissions of over a quarter of million tonnes through displacement of fossil fuel energy production, see Chapter 12, Section 12.2.

5.3.6 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”.

²³

National Climate Change Strategy 2007 – 2012
<http://www.environ.ie/en/Publications/Environment/Atmosphere/FileDownload,1861,en.pdf>

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”.

5.3.7 National Renewable Energy Action Plan

Ireland’s National Renewable Energy Action Plan 24 (‘NREAP, 2010’) sets out the Government’s strategic approach and concrete measures to deliver on Ireland’s 16% target under Directive 2009/28/EC²⁵ promoting the use of renewable energy. The NREAP was prepared in response to the submission required under the Directive and follows the format (data and questions) required in the template established by the EU. This Directive requires each Member State to adopt a national renewable energy action plan setting out the Member States national targets for the share of energy from renewable sources consumed in transport, electricity and heating and cooling in 2020, taking into account the effects of other policy measures relating to energy efficiency on final consumption of energy.

The Government’s ambitions for renewable energy and the related national targets are fully commensurate with the European Union’s energy policy objectives and the targets addressed to Ireland under the Renewable Energy Directive. Ireland’s energy efficiency ambitions (20% by 2020) as set out in the National Energy Efficiency Action Plan are duly reflected in the NREAP. The Government has set a target of 40% electricity consumption from renewable sources by 2020 and indicated estimated trajectories towards achieving this, see Table 5.2.

²⁴ National Renewable Energy Action Plan, IRELAND, Submitted under Article 4 of the EU Directive 2009/28/EC,
<http://www.dcenr.gov.ie/NR/rdonlyres/C71495BB-DB3C-4FE9-A725-0C094FE19BCA/0/2010NREAP.pdf>

²⁵ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

In terms of renewable wind energy the plan estimated that 4,649MW would be required to achieve the stated target for the energy sector.

Table 5.2: National 2020 target and estimated trajectory of energy from renewable sources in heating and cooling, electricity and transport

Year	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
%	6.9	20.4	24.6	25.3	30.5	31.0	32.4	32.2	33.8	37.5	37.3	42.5

The NREAP also set out the policy, technical and financial measures which would be required to implement the plan and achieve the targets.

“It is acknowledged that development of renewable energy is central to overall energy policy in Ireland, reducing dependence on fossil fuels, improving security of supply, and reducing greenhouse gas emissions creating environmental benefits while delivering green jobs to the economy, thus contributing to national competitiveness.”

The NREAP also identifies the need for the Irish grid to increasingly cope with the challenges posed by large amounts of intermittent power as the country moves towards meeting the 2020 targets. It states that:

“All key national entities, including the Energy Regulator, the distribution and transmission system operators and the renewable energy sector are working with the Government to deliver the 2020 target through grid connection and grid development strategies”.

The plan stresses the need for a fully joined up and integrated approach, involving all appropriate public sector bodies at national, regional and local level as been critical for delivery over the next decade. The challenge posed by the potential introduction in new energy infrastructure is also identified

“..in setting out to achieve a significant transformation of the energy landscape, the Government does not underestimate the challenge (not unique to Ireland) of winning the hearts and minds of local communities, in support of the new infrastructure required to deliver change. This challenge will need to be progressively addressed in the context of implementation of the plan”.

The commitment of the Irish Government in facilitating sustainable renewable energy development was also stated in the plan as follows:

“We are working to create the economic, infrastructural and planning conditions conducive to the sustainable development of all of Ireland’s renewable energy resources, which offer the potential for Ireland to become a significant exporter of renewable energy over the coming

decades. The Government will continue to work with the European Commission and other Member States to realise Europe’s ambitions for renewable energy, both onshore and offshore”.

5.3.8 NREAP First and Second Progress Report

Ireland submitted its first progress report on the NREAP to the EU Commission in January 2012²⁶ indicating the level of progress made and changes towards achieving the national targets. In relation to the energy sector the report indicated that the bulk of renewable energy would likely come from wind energy with a focus on on-shore wind. The estimated contribution from wind energy towards achieving the energy sector 2020 targets was also reduced from 4,649 MW set out in the original NREAP to 3,521 MW due to the downturn in the national economy. The report also indicated that an annual additional capacity of 200 MW of renewable wind energy would need to be added to achieve the national target by 2020 (based on EirGrid indication that 1,637 MW had been grid connected by March 2013)²⁷.

Progress of the EU 28 members towards achieving their NREAP 2012 targets and likelihood of achieving their 2020 targets is tracked by the EU’s Keep on Track Project (www.KeeponTrack.eu). The analysis of deviations and barriers to achievement published in 2014²⁸ indicates that there is doubt as to whether Ireland can achieve its 2020 targets.

The development of the proposed wind farm at Oweninny is fully in line with the Government’s NREAP and will contribute significantly towards achieving the 2020 target set for renewable energy.

5.3.9 Climate Action and Low Carbon Development Bill 2015

The Department of Environment, Community and Local Government published the Climate Action and Low Carbon Development Bill 2015 in January 2015 having secured Government approval for the provisions of the Bill.

²⁶ National Renewable Energy Action Plan (NREAP), IRELAND, First Progress Report, Submitted under Article 22 of Directive 2009/28/EC, January 2012

<http://www.dcenr.gov.ie/NR/rdoonlyres/B611ADDD-6937-4340-BCD6-7C85EAE10E8F/0/IrelandfirstreportonNREAPJan2012.pdf>

²⁷ http://www.eirgrid.com/media/All-Island_Wind_and_Fuel_Mix_Report_March_2013.pdf

²⁸ Spitzley J.B., Banasiak J., Filip Jirous, Najdawi C. (eclareon), Steinhilber S. (Fraunhofer ISI), Keep-on-Track! Project, Analysis of Deviations and Barriers 2013/2014, Published 30.06.2014, Contract N: IEE/11/842

The Bill sets out the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy in the period up to and including the year 2050.

The Bill provides for the preparation, and approval by the Government, of five-yearly National Low Carbon Transition and Mitigation Plans (or “National Mitigation Plans”) which will set out how Ireland’s national greenhouse gas emissions are to be reduced, in line with both existing EU legislative requirements and wider international commitments under the United Nations Framework Convention on Climate Change (UNFCCC).

5.4 REGIONAL AND LOCAL PLANNING AND POLICY

5.4.1 Regional Planning Guidelines

The updated Regional Planning Guidelines 2010 – 2020²⁹ for the West Region were made by the West Regional Authority on the 24th June 2010 in accordance with the Planning and Development Acts 2000-2010 and the 2009 Regional Planning Guidelines Regulations.

The objective of the Guidelines is to provide a framework for long term strategic development of the West Region for the period 2010 – 2022 in the context of the National Spatial Strategy 2002 - 2020.

A key aspect of the West Regional Authority’s Regional Planning Guidelines is integrating sustainable economic development with the protection and enhancement of the environment. The Regional Planning Guidelines are influenced by a wide range of international, national and regional level plans, programmes and legislation. The Guidelines also establish a framework for other lower level plans and programmes. The Regional Planning Guidelines (RPGs) set out the vision for the West Region and also sets out priorities including those which fall under the Strategic Infrastructure Act, 2006. Local planning policy (namely county, city and town Development Plans) must be consistent with the new Regional Planning Guidelines to ensure that zoning corresponds with population targets as set out by the Department of the Environment, Heritage and Local Government and the West Regional Authority. These targets provide for a sufficient supply of sustainable development to meet the needs of the regional population over the lifetime of the Guidelines.

CO14: Support the identification of suitable wind energy development locations through Habitats Directive Assessment, including consideration of cumulative and in combination

²⁹ Regional Planning Guidelines for the West Region, 2010 – 2020,
<http://www.galway.ie/en/Business/WestRegionalAuthority/RegionalPlanningGuidelinesOtherPlans/>

effects, landscape character assessments or landscape management strategy and habitat designations (Please refer to CO15 & IO54).

CO15: Initiate a Regional Energy Strategy for the West Region in order to identify suitable and unsuitable locations for new energy projects including networks. The strategy will be informed by Habitats Directive Assessment, landscape character assessments (or landscape management strategy) and other environmental assessment and will include consideration of potential cumulative and in combination environmental impacts (Please refer to CO14 & IO54).

With respect to planning and economic development the Guidelines sets out priority policies and objectives, with two considerations being deemed paramount:

- Productivity and Competitiveness
- Role of Cities/Urban Areas

Actions are listed (Section 3.5.2) to achieve competitiveness in the region. With respect to Section 3.5.2 (g) Renewable Energy the guidelines acknowledge the changing nature of energy supply as driven by resource depletion in hydrocarbons and the concerted global approaches being taken to address climate change. This is identified as providing opportunities and challenges for Irish enterprises over the coming years with forecast growth in the global energy goods and services. Potential activities range from the design, manufacture and installation of advanced equipment and infrastructures, project management and engineering services and solutions and operational management of energy assets and infrastructures.

The potential to harness opportunities in renewable energy in the West Region, due to its natural resources, include wind, wave and wood energy. The following policies and objectives are listed to support renewable energy development taking account of the need for appropriate assessment under the Habitats and Birds Directives as required (See Section 3.1.1 of the Regional Planning Guidelines).

Policies
<p>EDP20: Support the region as a leader in research and development of sustainable renewable energy (Section 3.1.1 applies). (Please refer to CO14, CO15 & IO54).</p> <p>EDP21: Support the development of the electricity grid network to facilitate the roll out of renewable energy infrastructure (Section 3.1.1 applies). (Please refer to CO14, CO15 & IO54).</p>

Objectives
<p>EDO8: Subject to Habitats Directive Assessment and/or other relevant environmental assessment, support the deployment of renewable energy infrastructure in appropriate locations (Please refer to CO14, CO15 & IO54).</p>

Section 5.5.4 of the Guidelines states that areas identified for wind farms must have regard to the level of the resource, the nature of the landscape, the status of surrounding lands and the Department of the Environment, Heritage and Local Government's 'Wind Energy Development Guidelines, 2006'. It also refers to the need for a Habitats Directive 'Appropriate Assessment' Screening along with other relevant environmental assessments where wind energy developments are proposed in or near a Natura 2000 site.

The development of the proposed Oweninny wind farm is supported by Policies EDP21 and EDP22 and Objective ED08. The Oweninny wind farm proposal has been developed with regard to the Department of the Environment, Heritage and Local Government's 'Wind Energy Development Guidelines, 2006'. A full ecological assessment of the potential for impact of the development on the ecology of the site has been undertaken (see Chapter 6 and Chapter 7). As the proposed development is located adjacent to special areas of conservation designated under the EU Habitats Directive screening for appropriate assessment has been undertaken also. This is provided as a separate document in the planning application.

The west Regional Authority reported that in the year following the adoption of the Regional Planning Guidelines for the West Region 2010-2022, implementation progressed well. Six of the eight development plans, including that of Mayo County Council had incorporated Core Strategies by the end of the 2011 in accordance with the Planning and Development Act 2000 (as amended)³⁰.

5.4.2 Planning Policy - Mayo 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 Mayo County Development Plan 2014 - 2020 came into effect in July 2015, following incorporation of Variation No. 1 into the plan, and is the framework document for guiding and controlling future developments in the county.

5.4.3 Mayo County Development Plan 2014 – 2020

The Mayo County Development Plan 2014 - 2020 is the current framework document for guiding and controlling future developments in the county. It presents the County Council's vision and strategy for the proper planning and sustainable development of the County. Variation No 1 of the Mayo County Development Plan 2014 – 2020, which was initiated in

³⁰ National Regional Planning Guidelines Implementation, Annual Report, 2011
<http://www.galway.ie/en/Business/WestRegionalAuthority/RegionalPlanningGuidelinesOtherPlans/RPGs%20Implementation%20Annual%20Report%202011%202nd%20April%202012.pdf>

July 2014 addresses the sections of the Plan (adopted on 22nd April 2014) deemed likely to result in significant effects on the environment including aspects of the Plan deemed likely to have a significant effect on one or more European sites and/or which were inconsistent with Ministerial Guidelines for Planning Authorities on Sustainable Rural Housing and Spatial Planning and National Roads."

The plan has undergone Strategic Environmental Assessment, Habitats Directive Assessment and Flood Risk Assessment and it was considered that no significant environmental effects are likely as a consequence of the plan or Variation No. 1. Additionally, it was determined, in view of best scientific knowledge, that Variation No. 1, individually or in combination with another plan or project would not be likely to have a significant effect on one or more European sites.

The purpose of Variation No. 1 was to, inter alia, address deficiencies in the adopted Plan from an SEA / Appropriate Assessment perspective and therefore to prevent significant effects on the environment and / or one or more European sites, Variation No. 1 was deemed likely to have positive effects on the environment and / or the integrity of one or more European sites.

5.4.3.1 Development Policies and Objectives

The Plan sets out objectives under Energy and Renewable Energy in Section 2 Economic Development Strategy as follows:

Energy Strategy

EY-01 It is an objective of the Council to support and facilitate the 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 bio-diversity, wildlife habitats, the landscape, nature conservation, and residential amenity.

EY-02 It is an objective of the Council to implement the Renewable Energy Strategy for Co. Mayo 2011-2020.

EY-05 It is an objective of the Council to support and facilitate the provision of a high quality electricity infrastructure in the County, whilst seeking to protect and maintain bio-diversity, wildlife habitats, scenic amenities, including protected views and nature conservation.

Renewable Energy Strategy

RE-01 It is an objective of the Council to implement the Renewable Energy Strategy for Co. Mayo 2011-2020 or any amendment to same.

RE-02 It is an objective of the Council to identify at least one renewable energy hub in the County which will allow for the development of renewable energy devices and associated infrastructure/vessels/equipment and deployment of the same having regard to the needs of the industry while ensuring no adverse impact on the environment including Natura 2000 sites.

RE-03 It is an objective of the Council that proposals for wind farms shall demonstrate consistency with the Landscape Appraisal of County Mayo with reference to the four Principal Policy Areas shown on Map 3A Landscape Protection Policy Areas and the

Landscape Sensitivity Matrix (Figure 3), and the Wind Energy – Guidelines for Planning Authorities (2006).

The proposed Phase 1 and Phase 2 development for Oweninny wind farm is in line with the Energy Strategies EY-01 and EY-02 and the Renewable Energy Strategies RE-0, RE-02 and RE-03 in that it will increase energy derived from renewable energy in the county and is located in Priority Area for wind as set out in the renewable Energy Strategy for Mayo.

5.4.4 County Landscape Policy

Mayo County Council’s Landscape Protection and Appraisal is discussed in detail in Chapter 11 – Landscape.

5.4.5 Mayo Renewable Energy Strategy

Mayo County Council adopted its Renewable Energy Strategy on 9th May 2011³¹. The Strategy sets out a path to allow County Mayo to contribute to meeting the national legally-binding renewable energy targets and clarifies the approach Mayo County Council takes to renewable energy. The Renewable Energy Strategy revises and replaces the Wind Energy Strategy for County Mayo. Its aim is to provide a plan-led approach to the location of renewable energy development in a more focused manner than that outlined in the Wind Energy strategy (2008). All major forms of renewable energy are considered in the Strategy, including wind energy.

With respect to wind Section 3.3.1 Renewable Energy from Wind states that wind power is currently one of the most developed and cost-effective renewable electricity technologies. Wind power is a renewable source of energy and produces no greenhouse gases during its operation.

Policy 3 deals with Strategic Infrastructure and states

“It is the policy of the Council to encourage and assist in the provision of strategic infrastructure at appropriate locations to facilitate the provision and exporting of renewable energy”.

Section 6.4.1 relates to on-shore wind energy and Map 1 of the strategy classifies potential areas for on-shore wind energy development, (reproduced as Figure 5-2). Four classifications are identified:

³¹ Forward Planning Section, Mayo County Council Renewable Energy Strategy for County Mayo, 2011-2020

Priority Areas are areas which have secured planning permission and where on shore wind farms can be developed immediately.

Tier 1 - Preferred (Large Wind Farms) are areas in which the potential for large wind farms is greatest.

Tier 1 - Preferred (Cluster of Turbines) are areas identified as being most suitable for smaller clusters of wind turbines (clusters of up to three to five turbines depending on site conditions and visual amenity).

Tier 2 - Open for Consideration identifies areas which may be considered for wind farms or small clusters of wind turbines but where the visual impact on sensitive or vulnerable landscapes, listed highly scenic routes, scenic routes, scenic viewing points and scenic routes will be the principal consideration. The Tier 2 classification will be reviewed by the Council following a determination by EirGrid of grid infrastructure for the County.

The Oweninny proposed wind farm site is located within the area classed as “Priority Areas”, which is an area where planning permission for wind energy development has been secured. Its development will contribute significantly to Mayo’s contribution to achieving national renewable energy targets.

5.4.5.1 Strategic Environmental Assessment – Draft Renewable Energy Strategy County Mayo

Strategic Environmental Assessment (SEA) is the process by which environmental considerations are required to be fully integrated into the preparation of Plans and Programmes and prior to their final adoption. The requirements for SEA in Ireland are set out in the following national Regulations;

S.I. No. 435 of 2004 (European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and

S.I. No. 436 of 2004 (Planning and Development (Strategic Environmental Assessment) Regulations 2004 as amended by

S.I. No. 200 of 2011 (European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011) and

S.I. No. 201 of 2011 (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011) respectively.

A Strategic Environmental Assessment of the Draft Renewable Energy Strategy for County Mayo was carried out in parallel to the Strategy by the SEA Team in Mayo County Council with an accompanying Environmental Report prepared by the Forward Planning Section of the Council.

Five Scenarios were considered as part of the alternatives assessed:

Scenario 1: Do Nothing Scenario - Retain Current Wind Energy Strategy and Mayo County Development Plan Renewable Energy Policies and Objectives

Scenario 2: Ad-hoc Planning for Renewable Energy Development

Scenario 3: Off-shore Renewable Energy Development only

Scenario 4: Strategically Planned off-shore and On-shore Renewable Energy Development

Scenario 5: Renewable Energy Development along the Mayo Coastline only

On the basis of the SEA analysis carried out, Scenario 4: Strategically planned Off-shore and On-shore Renewable Energy Development emerged as the most environmentally sustainable of the five scenarios considered.

The analysis also indicated that;

“Although Table 6.4 of the Environmental Report indicated that there is potential for conflict with the EPOs (Environmental Protection Objectives) under this Scenario in respect of Population and Human health; Freshwater, Material Assets including Drinking Water infrastructure, Piers and Harbours and IWAK, Cultural heritage and Landscape, such conflicts are likely to be mitigated by measures put in place to mitigate such conflicts. Scenario 4 also emerges as the alternative most likely to improve the status of the EPO’s particularly those relating to Biodiversity, Flora and Fauna, Marine waters and Ecology, Soils and Geology, Material Assets such as Waste Management Infrastructure and Mayo Forest estate and the Architectural Heritage of the County

Having regard to planning considerations, Scenario 4 is also the option that emerges as the alternative that balances environmental protection with economic and social development. Therefore scenario 4 is the basis that forms the Draft RES”

The draft Renewable Energy Strategy was subsequently adopted on this basis and four classifications developed including “Priority Areas” within which the proposed Oweninny wind farm is located.

5.5 CONCLUSIONS

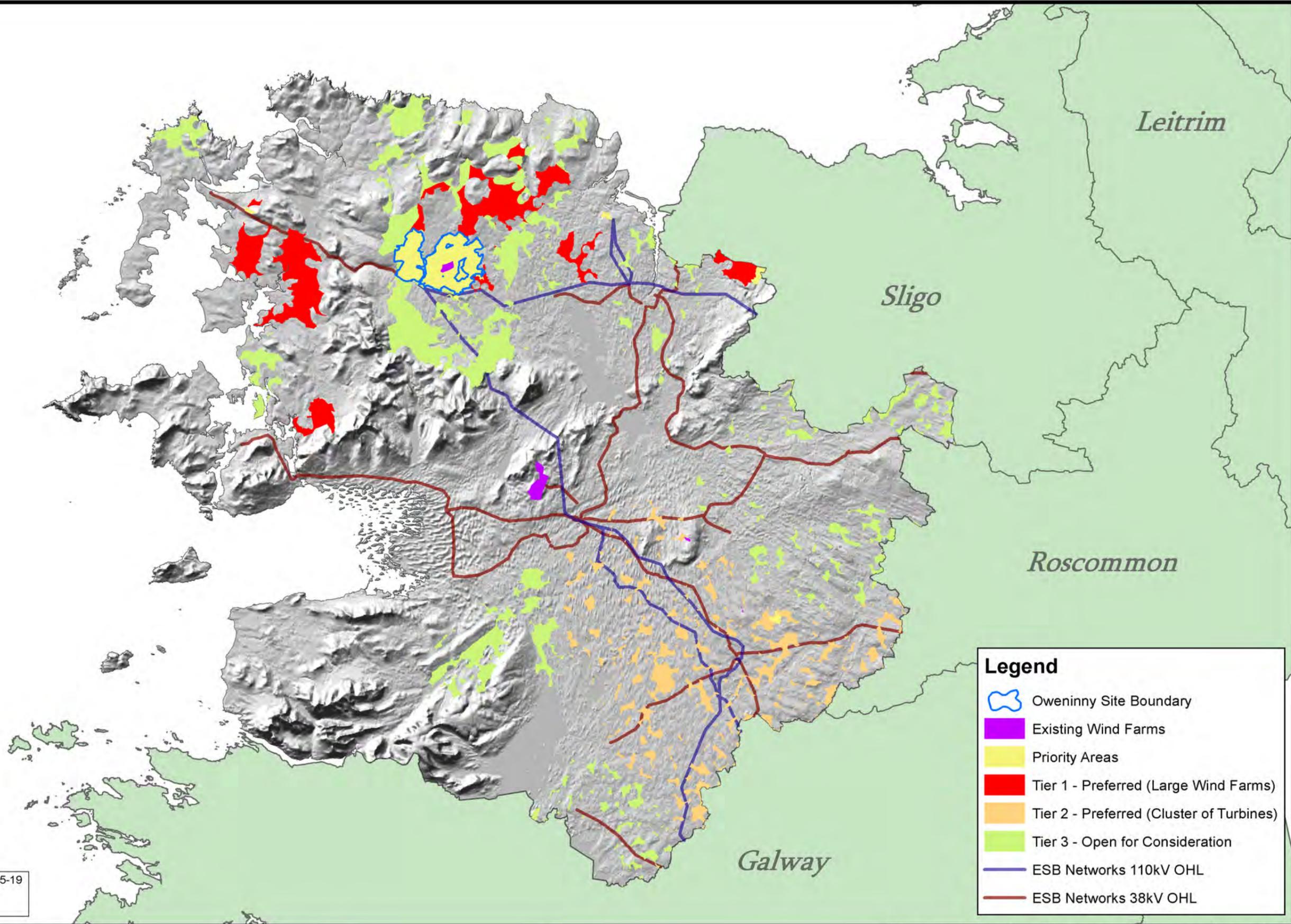
Ireland, like many modern economies, continues to face a wide range of challenges in energy policy due to a number of factors, including: rising prices of primary inputs (especially fossil fuels), energy and fuel price risk and volatility, energy supply security, greenhouse gas emissions, non-greenhouse 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. It can also contribute significantly to the EU’s 2030 targets and towards decarbonising the Irish economy by 2050.

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 the proposed Phase 1 and Phase 2 of Oweninny 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 and renewable energy strategy of Mayo County Council.

The development of Phase 1 and Phase 2 of the Oweninny wind farm, amounting to some 172 MW of installed wind energy, 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 and towards meeting future EU targets. It is fully in line with the Regional Planning Guidelines and Mayo County Council's energy and renewable energy policies and objectives set out in the current County Development Plan 2014 – 2020 and is located within a Priority Area for wind development as designated by the Mayo 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.



Legend

- Oweninny Site Boundary
- Existing Wind Farms
- Priority Areas
- Tier 1 - Preferred (Large Wind Farms)
- Tier 2 - Preferred (Cluster of Turbines)
- Tier 3 - Open for Consideration
- ESB Networks 110kV OHL
- ESB Networks 38kV OHL

Reproduced from Mayo County
Renewable Energy Strategy
2011-2020

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Engineering & Facility Management Ltd.

Oweninny Power Ltd.



Client
Oweninny Power Ltd.

Project
**Wind Farm at Oweninny,
Co. Mayo**

Title
**Mayo County Council
Renewable Energy Wind Map**

Production Unit
Civil, Building & Environment Group

DRAWN BY C.F	PRODUCED BY C.F	VERIFIED BY P.K	APPROVED BY N.Q	APPROVED DATE 10/09/2015
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MAP REFERENCE
FIGURE 5.1