



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 16

TELECOMS AND AVIATION

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APPENDIX 16.1

Consultation Letter Sent to List of Consultees



CONSULTANTS IN ENGINEERING & ENVIRONMENTAL SCIENCES

Our Ref: P0878/Lett/EB/MG

Mr. Peter Byrne
ESB Telecoms

peter.byrne@esb.ie

12th July 2018

Re: North Kildare Wind Farm Environmental Impact Assessment Report - Scoping and Consultation Report

Dear Mr. Byrne,

North Kildare Wind Farm Ltd (a subsidiary of Element Power Ireland Ltd) intends to apply for planning permission to construct a wind energy development between Prosperous and Enfield, in north Co. Kildare. The proposed wind farm site and grid connection includes lands in the townlands of Coolree, Kilmurry, Drehid, Parsonstown, Ballynamullagh, Clonkeeran, Killyon and Dunfierth.

This letter and enclosed scoping report is being issued to you as part of the consultation process for the EIAR. As part of the consultation process, we would be interested in receiving any comments you may have on the proposed development, relevant to your area of expertise, before 8th August 2018 in writing or by email to elaine.bennett@ftco.ie.

If you have no comments to make, I would be grateful if you would please acknowledge receipt of this letter.

If you have any queries regarding the project, please contact the undersigned.

Yours faithfully,

Dr. Elaine Bennett
for and on behalf of **Fehily Timoney & Company**

Encl.

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NORTH KILDARE WIND FARM LTD.

**NORTH KILDARE WIND FARM
ENVIRONMENTAL IMPACT ASSESSMENT REPORT -
SCOPING REPORT**

JULY 2018



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1 INTRODUCTION

1.1 General

1.1.1 [Introduction](#)

North Kildare Wind Farm Ltd (a subsidiary of Element Power Ireland Ltd) intends to apply for planning permission to construct a wind energy development between Prosperous and Enfield, in north Co. Kildare. The proposed wind farm site and grid connection includes lands in the townlands of Coolree, Kilmurry, Drehid, Parsonstown, Ballynamullagh, Clonkeeran, Killyon and Dunfieth. A site location map is presented in Figure 1.1. The proposed windfarm site is located in an area of commercial forestry, cutaway bog and on agricultural land.

1.1.2 [The Proposed Development](#)

The proposed development will comprise of up to 14 no. wind turbines with a tip height of up to 169m, turbine foundations and hardstanding areas, new access tracks and upgrading of existing access tracks, 1 no. substation including control buildings, underground electrical and communications cabling, borrow pit, drainage and sediment controls, temporary site compound, tree felling and associated works. The proposed development will have a Maximum Export Capacity (MEC) of up to 50 megawatts (MW). Further details on the proposed development including turbine delivery route and grid connection route are provided in Section 2. A preliminary site layout is presented in Figure 1.1.

1.1.3 [The Applicant](#)

The applicant for the proposed project will be North Kildare WF Ltd., which is a subsidiary of Element Power Ireland Ltd. Element Power Ireland is part of the wider Element Power group, a global renewable energy company that develops, acquires, builds and operates utility-scale wind and solar power projects. Element Power Ireland has constructed and operates a portfolio of approximately 100MW with another 120MW in construction in 2017/2018.

Element Power has an established track record in wind energy in Ireland, with its Irish team based in Tullamore and Cork. This team has previously developed over 16 wind farms in Counties Clare, Cork, Kerry, Donegal, Limerick, Galway, Waterford, and Tipperary and Tyrone.

1.2 Planning Process for the Proposed Development

The proposed development will be submitted for planning under the Planning and Development Regulations to the relevant local authority, Kildare County Council.

1.3 Environmental Impact Assessment and the Function of the EIAR

Under Section 172 of the Planning and Development Act, as amended, a planning application for a development which comes within a class of development specified under Schedule 2 of Part 5 of the Planning and Development Regulations must be accompanied by an Environmental Impact Statement in accordance with the 2011 Directive. Accordingly, as the proposed development, has more than 5 no. turbines and a generating capacity of greater than 5MW this EIAR has been prepared in accordance with the Planning and Development Regulations.

Pursuant to Directive 2011/92/EU and the more recent Directive 2014/52/EU and in accordance with Circular letter PL 1/2017 "Advice on Administrative Provisions in Advance of Transposition" from the Department of Housing, Planning, Community and Local Government (DHPCLG), the report constitutes an Environmental Impact Assessment Report (EIAR) and complies fully with both the 2011 and 2014 Directives.

The purpose of the EIAR will be to provide a detailed description of the proposed development and outline potential impacts associated with the construction and operation of the wind farm. Where adverse impacts have been identified, mitigation measures are proposed.

The 2014 Directive terminology for the report produced as part of EIA is an Environmental Impact Assessment Report (EIAR). As the 2014 Directive has not yet been transposed into Irish legislation, the term used throughout the report will be EIAR and will address the key items as required by both the 2011 and 2014 Directive.

1.4 Purpose of Scoping

The purpose of the EIAR scoping process is to identify the issues which are likely to be important during the environmental impact assessment and to eliminate those that are not. The scoping process will identify the sources or causes of potential environmental effects, the pathways by which the effects can happen, and the sensitive receptors, which are likely to be affected.

The issues identified in the scoping process will be examined in the EIAR, any potential impacts will be quantified, mitigation measures proposed as required, and residual impacts described. The scoping process will also identify the appropriate level of detail for the information to be provided in the EIAR. Scoping will be carried out through the issue of this report or a detailed letter with co-ordinates¹ to statutory and non-statutory consultees listed in Appendix 1. Consultees are invited to contribute to the EIAR by suggesting baseline data, survey methodologies and potential impacts that should be considered as part of the impact assessment process and in preparation of the EIAR.

Comments on the scope of the EIAR can be submitted by email to Elaine.Bennett@ftco.ie by the 8th of August 2018.

1.5 Contributors to the EIAR

This Scoping Report has been prepared by Fehily Timoney & Company (FT) on behalf of North Kildare WF Ltd. FT is a consultancy based in Cork and Dublin specialising in civil and environmental engineering, environmental science and planning, and is well established as a leading consultancy in wind farm development in Ireland.

FT will prepare a planning application and accompanying Environmental Impact Statement for submission to the planning authority, Kildare County Council.

Specialist contributors to the EIAR process comprise:

- Macroworks who will prepare the landscape and visual impact assessment; and
- Courtney Deery who will prepare the Cultural Heritage assessment.
- Arup Consulting Engineers will prepare the Traffic & Transportation assessment and cable laying.

1.6 Consultation

Public consultation on the project and engagement with the local community will be carried out.

The community liaison strategy will be based around engaging with the local community in an open, honest and transparent manner with the aim to not only provide clear and understandable information but also to gain feedback to understand the views of the local community and to use this information to inform the design process, thus allowing the local community an opportunity to have an influence on the final project design.

The Community Liaison Officer (CLO) will be appointed as the point of contact for the area.

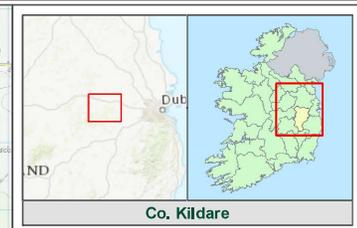
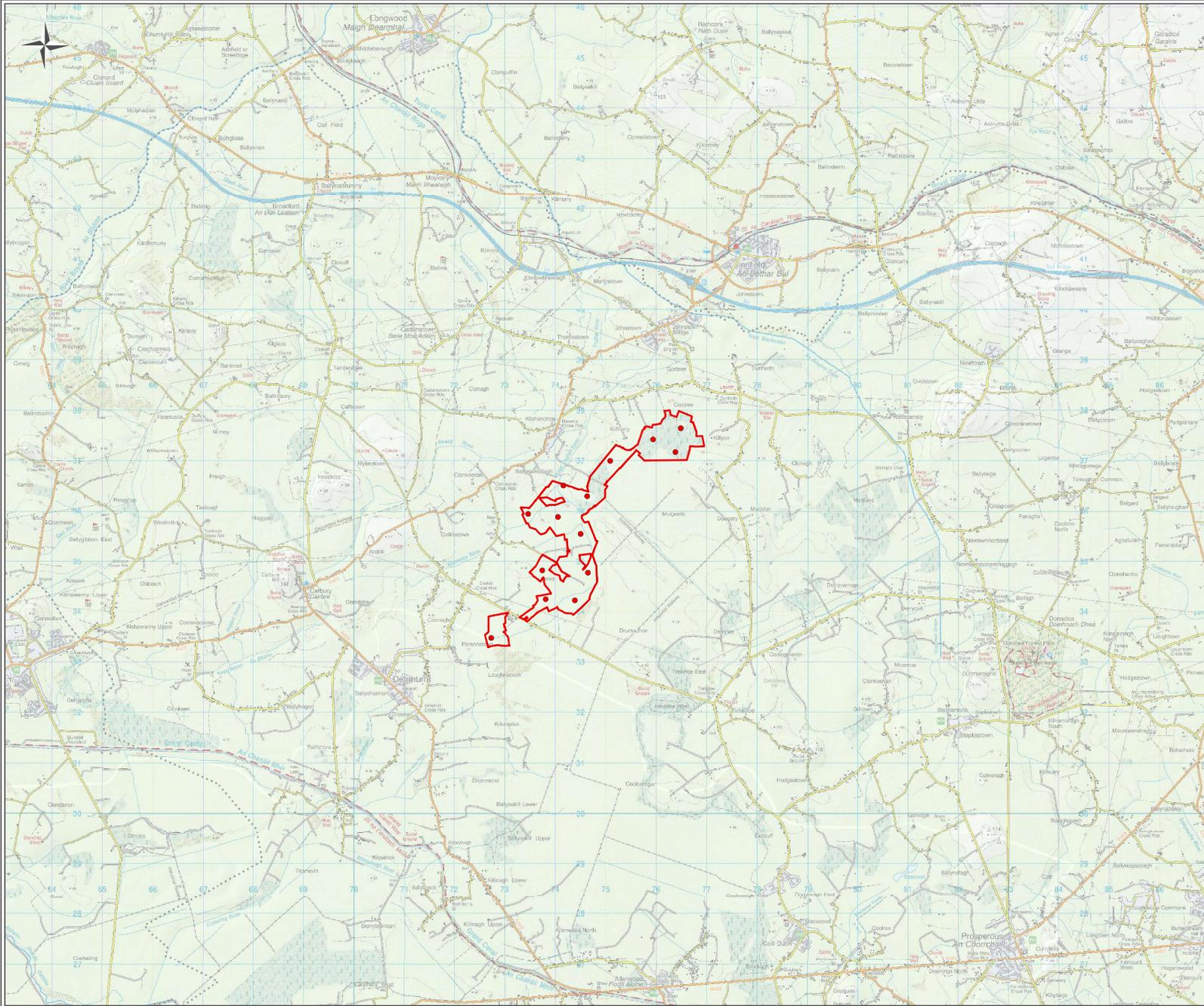
¹ Letter with co-ordinates sent to companies or bodies relating to telecommunications or aviation

At all stages of engagement there will be a flexible approach to facilitating the timing of calls/meetings. Feedback from the one-to-one meetings will be passed on to the project design team on an ongoing basis so as to allow the feedback from this engagement to inform the design process. Where areas of concern or interest are expressed, every effort will be made to not only provide accurate information but also to guide the individuals concerned towards sources of accurate information. As the design process progresses one-to-one meetings will be ongoing with update leaflets/newsletters distributed in the local area to provide clear information on the main aspects of the project as it evolves.

At all stages of the community engagement process, contact details in the form of a contact phone number and email address for enquiries are distributed.

1.7 Pre-Planning Meetings

A preplanning meeting will be held with Kildare County Council to discuss the project.



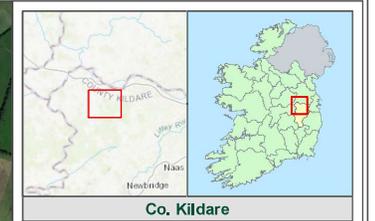
Legend

- Turbine Locations
- Wind Farm Boundary

Figure Title	Site Location	
Figure No.	1.1	
Project	Drehid Wind Farm	
Client	Element Power	
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Legend

- Turbine Locations
- Proposed Substation Location
- Wind Farm Boundary

Figure Title	Preliminary Site Layout		
Figure No.	1.2		
Project	Drehid Wind Farm		
Client	Element Power		
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2 PROJECT DESCRIPTION

2.1 Proposed Infrastructure

The proposed development will comprise of up to 14 no. wind turbines with a tip height of up to 169m, turbine foundations and hardstanding areas, new access tracks and upgrading of existing access tracks, 1 no. substation including control buildings, underground electrical and communications cabling, drainage and sediment controls, temporary site compound, tree felling and associated works. The proposed development will have a Maximum Export Capacity (MEC) of up to 50 megawatts (MW). A preliminary site layout is presented in Figure 1.2.

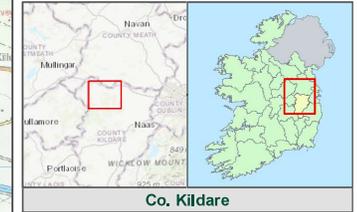
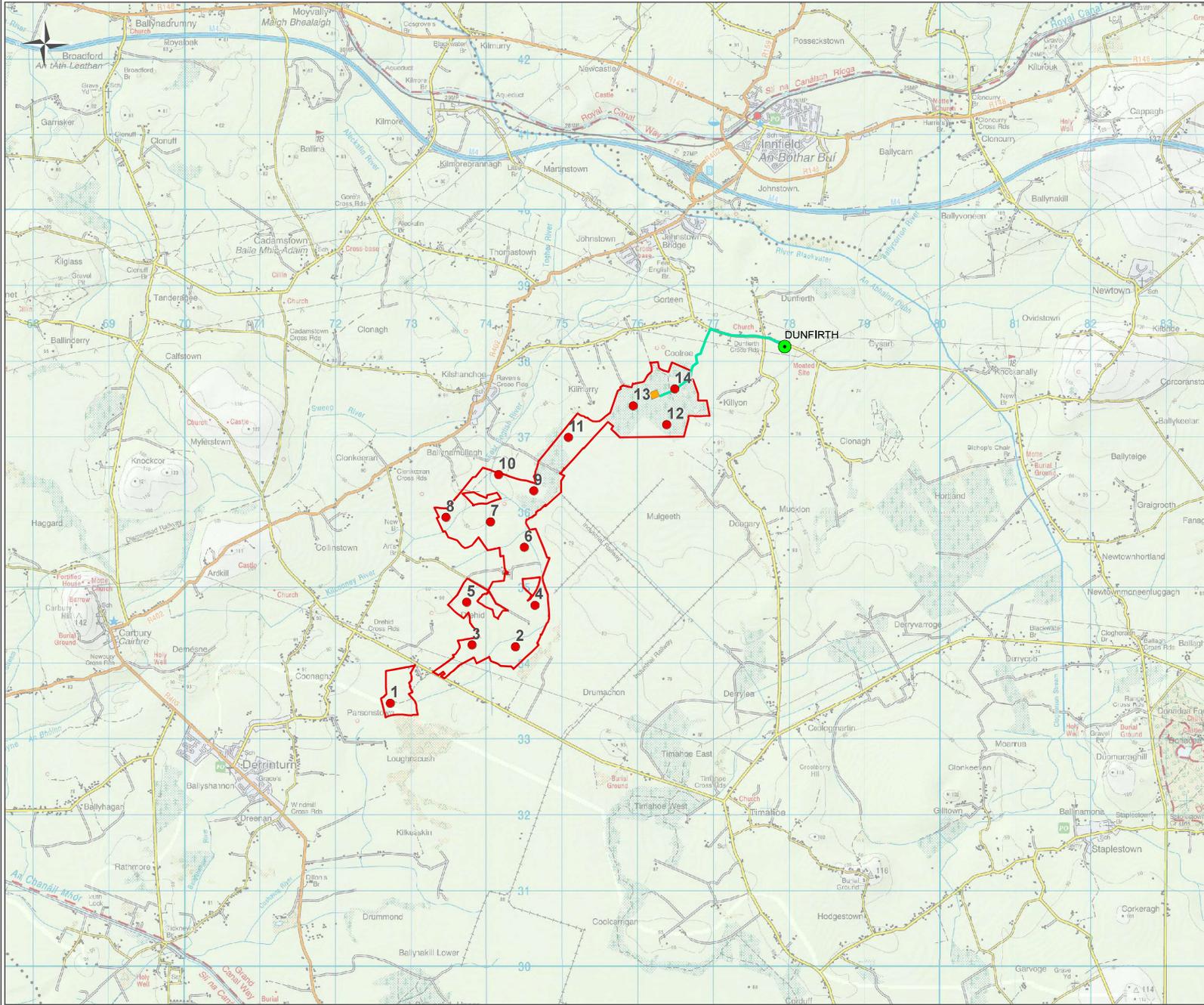
The wind farm will have a defined planning boundary which will include not only the turbines themselves but also the ancillary infrastructure listed above.

The electricity generated by the proposed wind farm will be transmitted by a collector system of underground cables to the proposed onsite substation. The proposed development will also comprise underground cables from the wind farm to the National Grid connection point as well as improvements to the public road network for the delivery of turbine components.

2.2 Grid Connection

The proposed development will have a Maximum Export Capacity (MEC) of up to 50 megawatts (MW). Impacts associated with the proposed grid connection will be assessed as part of the project and the results presented in the EIAR.

It is proposed that the development will connect to the existing 110kV substation at Dunfiirth via underground cable. The proposed grid connection route will follow the route of the existing public road between the proposed wind farm site and the 110kV substation at Dunfiirth. The proposed grid connection route is shown in Figure 2.1. There will be no overhead lines required for the grid connection.



- Legend**
- Substations (110-220kV)
 - Turbine Locations
 - Proposed Cable Route
 - Proposed Substation
 - Wind Farm Boundary

Figure Title	Grid Connection Route	
Figure No.	2.1	
Project	Drehid Wind Farm	
Client	Element Power	
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Revision	A	Date 12/07/2018

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2.3 Turbine Delivery

A number of components will enter the country through the ports including the blades, tower sections and the nacelles. The turbine components will be delivered to site by specialist transport vehicles and these components will then be assembled on site.

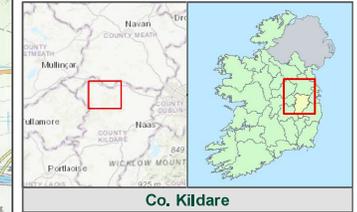
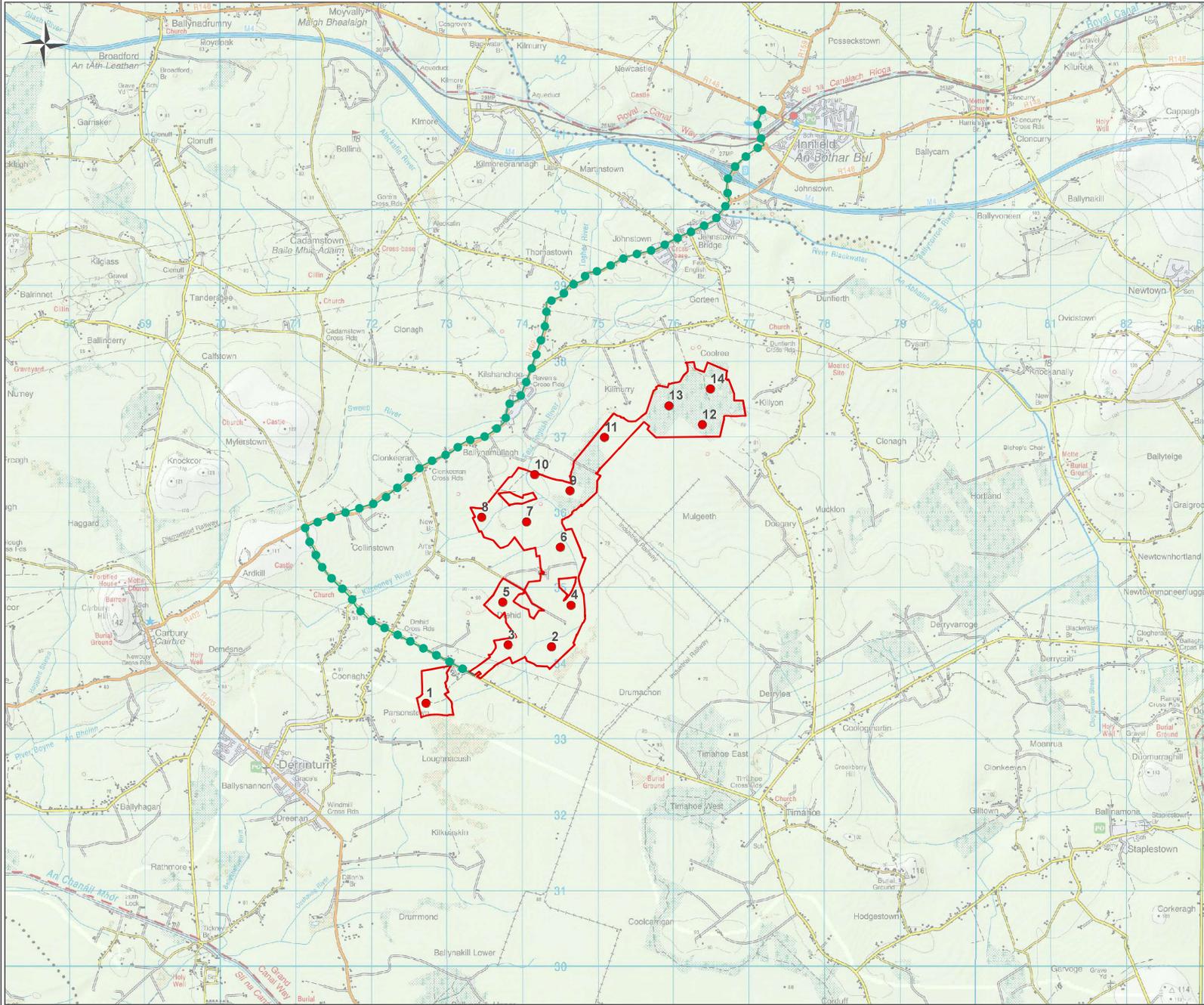
The turbine delivery route is shown in Figure 2.2. The delivery route from the chosen port into which the components are shipped, to the wind farm site will use motorway and the national primary route network as much as possible. It is proposed to deliver turbines to the site via the M4 motorway until Enfield, then along the R402 for ca. 7.7km and finally local road(L5025) to the entrance of the site.

2.4 Site Location and Description

The proposed wind farm site includes lands in the townlands of Coolree, Kilmurry, Drehid, Parsonstown, Ballynamullagh, Clonkeeran, Killyon and Dunfiirth and is ca. 390ha in size. The site is accessed from M4 motorway until Enfield, then along the R402 for ca. 7.7km and finally local road(L5025) to the entrance of the site. The site lies c. 2.8km south of the motorway M4 at Enfield and 1.2km southeast of the regional road R402 linking the M4 to the R420 east of Tullamore in County Offaly.

The site of the proposed development encircles the northernmost part of Timahoe Bog which is a large expanse cutover peatland bog. The proposed site incorporates the dryland and marginal dryland/wetland interface and former bogland; it is located in relatively low-lying but undulating land with the majority of proposed turbines located beneath the 80m contour line. The land rises to more undulating agricultural lands in an arc to the northeast and east of the cluster while to the south the land remains low-lying bogland. The Fear English River rises in Parsonstown at approximately 88mOD and flows through and adjacent to the site. After the confluence with the Kilcooney River, the Fear English River continues in a north easterly direction for 3km to Johnstown Bridge, where it meets the River Blackwater. The landscape is classified as being of low sensitivity from a landscape perspective.

There are 60 residential properties and 9 no. both residential and commercial and 2 commercial properties located within 1km of the proposed turbine locations. There is 1 house within 500m of the turbines (the landowner is involved in the project. This occupied dwelling is located 422m from the nearest proposed turbine location (T6).

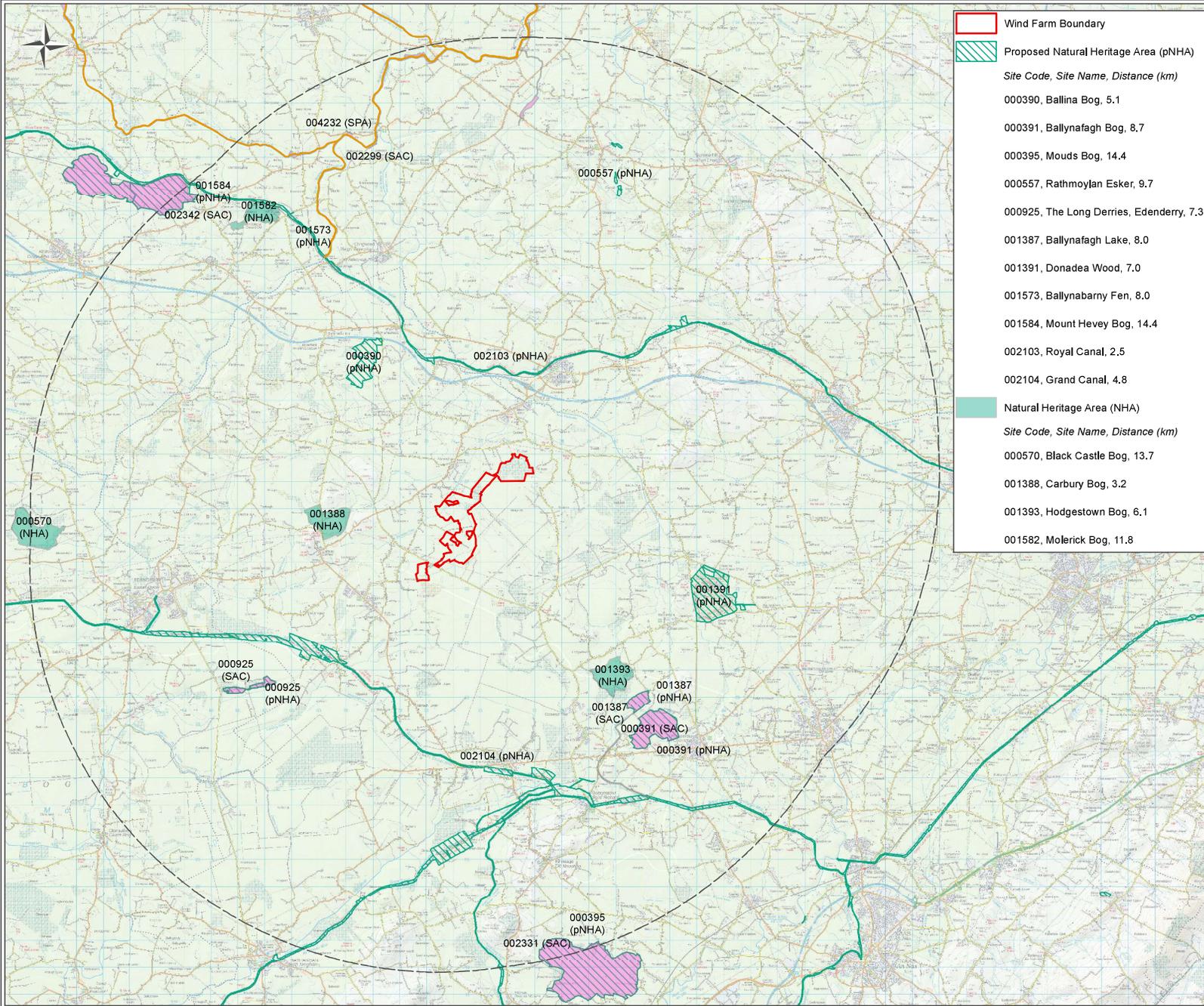


- Legend**
- Proposed Turbine Delivery
 - Turbine Locations
 - Wind Farm Boundary

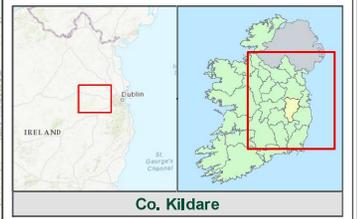
Figure Title	Turbine Delivery Route	
Figure No.	2.2	
Project	Drehid Wind Farm	
Client	Element Power	
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Site Code	Site Name	Distance (km)
000390	Ballina Bog	5.1
000391	Ballynafagh Bog	8.7
000395	Mouds Bog	14.4
000557	Rathmoylan Esker	9.7
000925	The Long Derries, Edenderry	7.3
001387	Ballynafagh Lake	8.0
001391	Donadea Wood	7.0
001573	Ballynabarny Fen	8.0
001584	Mount Hevey Bog	14.4
002103	Royal Canal	2.5
002104	Grand Canal	4.8
000570	Black Castle Bog	13.7
001388	Carbury Bog	3.2
001393	Hodgestown Bog	6.1
001582	Molerick Bog	11.8



Legend

- Wind Farm Boundary
- 15km Distance from Wind Farm
- Special Protection Area
- Natural Heritage Area (NHA)
- Proposed Natural Heritage Area (pNHA)
- Special Area of Conservation

Site Code	Site Name	Distance (km)
004232	River Boyne and River Blackwater	9.7
000391	Ballynafagh Bog	8.6
000925	The Long Derries, Edenderry	
001387	Ballynafagh Lake	7.9
002299	River Boyne And River Blackwater	9.6
002331	Mouds Bog	14.3
002342	Mount Hevey Bog	14.4

Figure Title
Designated Nature Conservation Sites

Figure No. 2.3

Project
Drehid Wind Farm

Client
Element Power

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3 PLANNING AND POLICY CONTEXT

North Kildare Wind Farm has been proposed in response to European and Irish Government Policies in relation to renewable energy. The European, National, Regional and Local planning and policy context for the proposed North Kildare Wind Farm will be addressed with reference to the Kildare County Development Plan 2014-2020 and other plans and policies, Regional Planning Guidelines and National Guidelines.

The EU Directive on the Promotion of the Use of Energy from Renewable Sources (2009/28/EC) sets a target of 20% of EU energy consumption from renewable sources by 2020 and a 20% cut in greenhouse gas emissions by 2020, the so-called 20:20:20 plan. As part of this Directive, Ireland's overall national target for the share of energy from renewable sources in gross final consumption of energy in 2020 is 16% (increased from 3.1% in 2005).

This means that Ireland has a legal obligation to diversify its energy sources by 2020 requiring the development of renewable energy to avoid substantial fines. The Department of Public Expenditure and Reform (DPER) '*Future Expenditure Risks associated with Climate Change/Climate Finance*' (June 2014) estimate that the cost to Ireland for a shortfall in the range of 1% to 4% on the overall 2020 target could result in costs to the Exchequer of between €140m to €600m.

When planning for the development of renewable energy on a national scale it is important to be cognisant of hierarchical structure of plans within which Irish planning policy sits. At a national scale the National Planning Framework, demonstrates an approach that joins up ambition for improvement across the different areas, recognising the need for new energy systems and transmission grids in order to deliver a more distributed, renewable focused national energy system in order to harness the potential from wind, wave and solar energy sources.

In the context of the Eastern and Midlands region, Section 3.2 acknowledges the potential to harness renewable energy across the technological spectrum in order to sufficiently adapt to a greener society.

"Harnessing the potential of the region in renewable energy terms across the technological spectrum from wind and solar to biomass and, where applicable, wave energy, focussing 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."

A key planning policy document against which the proposed development is to be assessed is the Kildare County Development Plan, 2017 to 2023 (KCDP). The KCDP sets out an overall strategy for the proper planning and sustainable development of County Kildare over the period between 2017 and 2023. It provides a clear vision, strengthened by a series of policies and objectives which aim to guide the planning and development of the County.

The policies and objectives of the Authority on renewable energy development are contained in Chapter 8 Energy and Communications. As outlined in Section 8.1 Background, *"to sustain continued growth, Kildare County Council will require energy to power homes, businesses, public services and transport. Energy supply needs to be reliable, efficient and robust so that it can facilitate growth across all sectors. **Kildare County Council will make every effort to increase energy efficiency and unlock renewable energy potential**".* This is supported by the Plan's recognition of European and national policy's commitment to increasing the proportion of energy consumed from non-polluting, renewable sources (wind, solar, hydro and geothermal).

Section 8.3 Strategy, recognises the aim of the Plan to support the development of indigenous renewable energy resources and to maximise electricity production, in accordance with the principles of sustainable development.

The Plan seeks:

- *"To support national and EU policy for the provision of new and innovative sources of renewable energy.*
- *To facilitate energy supply and distribution in the county in order to support an efficient and vibrant economy*

- *To ensure that the location of renewable energy structures should minimise and/or mitigate any adverse visual and environmental impacts on the built or natural environment.”*

Further, in Section 8.4 Renewable Energy, it is noted that:

“Due to increased energy requirements and national and EU targets for energy consumption from renewable sources, the electricity supply must be augmented by alternative forms of generation. The Council recognises the range of new and developing technologies that can contribute to minimising greenhouse gas emissions and to securing a greater proportion of our energy needs from renewable resources.”

Section 8.5 Wind Energy recognises the significant contribution that wind energy can make towards achieving Ireland’s renewable energy targets to 2020 and beyond, and outlines the Council’s commitment to preparing a Wind Energy Development Strategy in line with the “Methodology for Local Authority Renewable Energy Strategies” prepared by the Sustainable Energy Authority of Ireland.

In determining the potential impact of a particular form of development on the receiving landscape, a Table and a map was prepared by Kildare County Council to identify the likely compatibility between a particular land-use and a principle landscape area. The proposed development falls with the western boglands landscape character area which is classified to have ‘medium’ compatibility with windfarm.

Table 3.5 of the Kildare County Development Plan 2017 – 2023 provides further plan lead objectives concerning the compatibility of wind farm development in the context of a range of land-uses and proximity to principal landscape sensitivity factors. It illustrates that wind farms are either likely to be compatible with great care or reasonable care on Peat Bogs and in agricultural lands. It is also noted that the site is not located in an area designated on Map No. 13.2 as Mixed or Broad Leaved forestry. Therefore, the proposed development is located in the most compatible land use within the County of Kildare.

4 STRUCTURE AND SCOPE OF THE EIAR

4.1 Contents of the EIAR - Statutory Requirements

The EIAR will be prepared in accordance with Schedule 6 of the Planning and Development Regulations 2001, as amended, which sets out the contents of an EIAR. In addition, the contents of Directive 2014/52/EU, which was adopted in the EU on 16 April 2014, amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment will also be incorporated in the preparation of this EIAR (the 2014 EIA Directive).

The purpose of the EIAR is to provide in particular:

- a) a description of the project comprising information on the site, design, size and other relevant features of the project;
- b) a description of the likely potential significant effects of the project on the environment;
- c) a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;
- d) a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;
- e) a non-technical summary of the information referred to in points (a) to (d); and
- f) any additional information relevant to the specific characteristics of the wind farm project proposed.

Article 3 of the 2014 EIA Directive states that an "environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors:

- (a) population and human health;
- (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;
- (c) land, soil, water, air and climate;
- (d) material assets, cultural heritage and the landscape;
- (e) the interaction between the factors referred to in points (a) to (d)"

The 2014 Directive terminology for the report produced as part of EIA is an Environmental Impact Assessment Report (EIAR).

4.2 EIAR Methodology

4.2.1 General

The EPA has published guidelines on the preparation of environmental impact statements. These are contained in 'Advice Notes on Current Practice (in the preparation of Environmental Impact Statements)², published in 2003 and 'Guidelines on the Information to be contained in Environmental Impact Statements'³ published originally in 2002, but revised in Draft format in 2015 and 2017. The EIAR team will have regard to these guidelines in the preparation of the EIAR. In addition, the EIAR will be completed in accordance with the guidance produced by the European Commission in 2017 – *Guidance on the Preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)*. The team will also have regard to best practice guidance for individual environmental topics.

² EPA (2003), *Advice Notes on Current Practice (in the preparation of Environmental Impact Statements)* Available at: https://www.epa.ie/pubs/advice/ea/guidelines/EPA_advice_on_EIS_2003.pdf

³ EPA (2002) *Guidelines on the Information to be contained in Environmental Impact Statements*, available at: <https://www.epa.ie/pubs/consultation/reviewofdrafteisguidelinesadvicenotes/Draft%20Guidelines%20on%20the%20Information%20to%20be%20contained%20in%20an%20EIS.pdf>

Regard will also be paid to the 'Best Practice Guidelines for the Irish Wind Energy Industry' published by the Irish Wind Energy Association and the 'Wind Energy Development Guidelines' published by the Department of Environment, Heritage and Local Government (2006) or the latest adopted revision at the time of application

There are two different EIAR structures which are commonly used and which the EPA guidelines accept as equally valid. The structure, which the EIAR team proposes to use for the EIAR for the proposed North Kildare Wind Farm, is the grouped format structure.

Using this structure there is a separate chapter for each topic, e.g. air quality, Biodiversity, hydrology. The description of the existing environment, the proposed development and the potential impacts, mitigation measures and residual impacts are grouped in the chapter. The grouped format makes it easy to investigate topics of interest and facilitates cross-reference to specialist studies.

Given the need to ensure that the EIAR is readily accessible to the general public, as well as to the statutory authorities, the EIAR team has proposed to structure the EIAR as described below:

- Non-technical Summary
- Introduction
- Description of the Development
- Policy and Legislation
- EIAR Scoping and Consultation
- Air Quality and Climate
- Landscape and Visual
- Shadow Flicker
- Noise and Vibration
- Traffic and Transportation
- Biodiversity
- Land, Soils, Geology and Slope Stability
- Hydrology & Water Quality
- Population, Human Health & Material Assets
- Archaeology, Architecture and Cultural Heritage
- Telecommunications and Aviation
- Interactions of the Foregoing

4.2.2 EIAR Chapter Structure

The broad methodology framework used in each chapter will include the following:

- Introduction
- Methodology
- Existing Environment
- Potential Impacts
- Mitigation Measures
- Residual Impacts

Introduction

This section introduces the environmental topic to be assessed and the areas to be examined within the assessment.

Methodology

Specific topic related methodologies are outlined in this section. This will include the methodology used in describing the existing environment and undertaking the impact assessment. It is important that the methodology is documented so that the reader understands how the assessment was undertaken. This can also be used as a reference if future studies are required.

Existing Environment

An accurate description of the existing environment is necessary to predict the likely significant impacts of a new development. Existing baseline environmental monitoring data can also be used as a valuable reference for the assessment of actual impacts from a development once it is in operation.

To describe the existing environment, desktop reviews of existing data sources will be undertaken for each specialist area relying on published reference reports and datasets to ensure the objectivity of the assessment. Desktop studies are also supplemented by specialised field walkovers or studies in order to confirm the accuracy of the desktop study or to gather more baseline environmental information for incorporation into the EIAR.

The existing environment will be evaluated to highlight the character of the existing environment that is distinctive and what the significance of this is. The significance of a specific environment can be derived from legislation, national policies, local plans and policies, guidelines or professional judgements. The sensitivity of the environment will also be described.

Potential Impacts

In this section, individual specialists predict how the receiving environment will interact with the proposed development. The full extent of the proposed development's effects and emissions before the proposed mitigation measures are introduced is outlined. Impacts from both the construction and operation phases of the proposed development are outlined. Interactions and cumulative impacts with other environmental topics are also included in this evaluation.

The evaluation of the significance of the impact is also undertaken. Where possible, pre-existing standardised criteria for the significance of impacts will be used in accordance with the guidelines set out in the EPA (2015) Draft Guidelines on the Information to be contained in Environmental Impact Statements. However, until the 2014 Directive is implemented, the 2002 Guidelines and their criteria need to be used. Such criteria can include Irish legislation, international standards, European Commission and EPA guidelines or good practice guidelines. Where appropriate criteria do not exist the assessment methodology section states the criteria used to evaluate the significance.

Mitigation Measures

If significant impacts are anticipated mitigation measures will be devised to minimise impacts on the environment. Mitigation measures by avoidance, by reduction and by remedy can be outlined.

Residual Impacts

The assessment identifies the likely impact that will occur after the proposed mitigation measures have been put in place. These impacts are described in detail and assessment of their significance undertaken.

4.2.3 EIAR Report Structure

The structure proposed for the EIAR is as follows:

- Volume 1 - Non Technical summary (including figures)
- Volume 2 - Main EIAR
- Volume 2B – Figures
- Volume 3 - Appendices for the EIAR
- Volume 4 – Photomontages

4.2.4 EIAR Draft Table of Contents

The draft EIAR Table of Contents is attached in **Appendix A**.

5 ENVIRONMENTAL ISSUES TO BE ADDRESSED IN THE EIAR

5.1 Introduction

The EPA Advice Notes provide guidance on the topics which would usually be addressed when preparing an EIAR for different classes of development. The Advice Notes highlight typical issues, which would arise for each development class. Project Type 33 is 'installations for harnessing wind power for energy production (wind farms)'. The scope of the EIAR will have regard to the guidance provided on the issues to be addressed for a Project Type 33.

The EIAR will also have regard to environmental impact assessments, which have been undertaken recently by Kildare County Council for wind farm projects which will be included within the Introduction to this project.

5.2 Background to the Project

The EIAR will summaries International, European, National and Local Energy and Planning Policy, the challenges associated with Climate Change and the related need for the proposed development.

5.3 Alternatives Considered

The alternatives, which were considered, when developing the overall configuration of the proposed North Kildare Wind Farm, will be described and the technology options for the project will be outlined in Chapter 1 Introduction and Project Rationale.

The principle alternatives studied with respect to the wind farm will be outlined under the following headings:

- *Locations* – This will include a discussion of the overall site selection process for the wind farm on a national, regional and local scale. It will include a site selection report which will be included in the EIAR outlining details of the criteria used to determine site suitability for wind energy development including:
 - Wind resource;
 - Proximity to residential dwellings;
 - Land Zoning in County Development Plans;
 - Established and Future Land-Use;
 - Ecological Conservation Designations;
 - Landscape Designations; and
 - Ease of Access etc.
- *Access* – Details of the criteria used to select the network of access tracks that will provide access from the public road network to the site (and to each turbine within the site) in addition to those that will provide internal connections (as an alternative to using public roads) between turbines will be outlined. This will include information on the availability of existing track, suitable ground conditions, terrain, local road infrastructure etc.
- *Connection to the National Grid* – Details of the criteria used to select the proposed grid connection route to the Dunferth 110kV substation will be provided. This will include an assessment of alternative grid connection route options.

The reasons, including environmental and plan-led considerations will be explained.

5.4 Scheme Description

The EIAR will describe the baseline environment, potential impacts, mitigation measures and residual impacts for each specific environmental topic.

A description of the proposed grid connection route will be included in the EIAR, with information provided on trench-details and the construction methodology to be utilised.

In a judgement in 2014, *O’Grianna v. An Bord Pleanála, Cork County Council and Framore Limited*, it was ruled that all planning permission should not be granted for a wind farm project requiring a grid connection unless the grid connection details are provided in the Environmental Impact Assessment (EIA) process. Arising from this it is essential that the details of this project and its proposed grid connection should be provided in the EIA process, this will be set out in the Description of Development in detail in Chapter 2, while Chapter 1 will provide a detailed assessment of alternatives considered in relation to the preferred grid connection route.

The operating procedures and hours, staffing, monitoring, maintenance requirements, and the provision for decommissioning of the proposed North Kildare Wind Farm will also be outlined.

If planning permission is secured for the proposed development, tree felling, site preparation works, upgrading of existing access tracks and the provision of new access tracks will precede all other activities. Drainage infrastructure will be constructed in parallel with the track construction. This will be followed by the construction of the turbine foundations and the provision of the hardstanding areas. In parallel with these works the on-site electrical works; sub-station and internal cable network; will be completed. The cable from the wind farm site to the proposed grid connection point at Dunfiirth substation will then be laid underground, primarily along public roads. Any works required to the public road network to facilitate turbine delivery will also be carried out.

5.5 Construction Activities

The wind farm site will have a defined planning boundary to include not only the turbines themselves but all ancillary infrastructure such as transformers and crane hardstanding areas at each turbine, borrow pits, new and upgraded site tracks, on-site underground cabling and an on-site substation with toilet facilities. Details on all of these elements will be provided within the EIAR.

Information will be provided on the following aspects of the construction of the wind farm:

- Construction programme
- Construction sequence and methodology
- Drainage control measures
- Temporary site facilities
- Site preparation works
- Access road construction and upgrade
- Borrow pits and reinstatement works
- Cable installation on site
- Turbine foundation and associated hardstanding area construction
- Turbine delivery and installation
- Commissioning

The control measures that will be implemented to manage the risk of soil and water pollution, emissions of dust and noise, construction waste management and traffic impacts will be explained.

5.6 Consultation Programme

Stakeholders, including national and local regulatory bodies, Government agencies, environmental NGOs and the general public will be provided with information on the project and asked for their comments and concerns. A list will be provided in the EIAR of the bodies consulted and a summary will be provided of the queries and concerns expressed and in what section of the EIAR these queries and concerns are addressed.

5.7 Environmental Aspect: Population & Human Health (Human Beings)

5.7.1 Aspects to be addressed

Health and Safety

The potential impacts on health and safety from wind farms will be assessed.

Population

The impact on the local population and demographics will also be assessed.

Land Use and Recreation

The assessment will address the potential impacts of the proposed North Kildare Wind Farm on land use, residential amenity and recreational facilities.

Socio-Economics

The potential impacts of the proposed North Kildare Wind Farm on population trends, employment and the main economic activities of the region and property values will be addressed in this chapter.

Tourism

The assessment will address the potential impacts of the proposed wind farm on the tourism of the region.

Material Assets

The assessment will address the potential impact on physical infrastructure, such as roads, pipelines, railways and ports.

5.7.2 Assessment Methodology

Health and Safety

The assessment will contain a desk study review of the impacts of the operation of wind turbines on health and safety using published and verified sources of information.

Land Use and Recreation

The main land uses in the area, which could potentially be affected by the proposed North Kildare Wind Farm, will be described using Corine 2006 land cover data and this data will be verified by subsequent walkovers and drive-by surveys. All areas of scenic beauty in addition to heritage, culture and leisure facilities in the areas will be identified. A review of the main recreational activities in the area likely to be affected will be conducted. Residential amenities and recreational facilities, such as forestry in public ownership, walking paths, sports facilities, will be recorded and potential impacts assessed.

An assessment will then be conducted for each element of the proposed North Kildare Wind Farm to ascertain any potential impacts that may arise which could directly or indirectly affect land use, a recreational activity or an amenity. This assessment will be prepared giving cognisance to other disciplines such as cultural heritage and archaeology, hydrology and ecology.

A review will be conducted of a number of published studies and surveys which have been conducted both in Ireland by Fáilte Ireland and in the UK on the attitude of tourists to wind farms.

Population

CSO data will be interrogated to establish population and demographic trends in the area with regard to local population. It will examine the impact on population densities, having regard to housing trends and housing settlement strategies for the area.

Socio-Economics

Data from the Central Statistics Office will be used to define the socio-economic baseline. The potential positive and negative impacts of the proposed North Kildare Wind Farm on population, employment and economic activity both directly and indirectly, will be assessed.

Tourism

A study of the potential impacts of the wind farm may have on the tourism of the region will be carried out by reviewing Fáilte Ireland surveys, appraising the existing patterns of the tourism within the county and appraising the impacts that wind farms have on tourism in other counties and countries.

Material Assets

The physical infrastructure, which could potentially be affected by the proposed wind farm development, will be catalogued and capacities estimated. All utilities services will be identified and mapped for the proposed wind farm site and an assessment will be carried out to determine if any service needs to be diverted/relocated. This process will be carried out in consultation with the service provider with the proposed mitigation measures to be agreed by both parties.

5.7.3 Receiving Environment

Health and Safety

The closest occupied dwelling to the current proposed layout is located 422m from the nearest proposed turbine location (this landowner is involved in the project). The general receiving environment is rural, with areas of pastoral agriculture, cutaway bogs and forestry. The North Kildare Wind Farm site is located between the towns Enfield and Prosperous in County Kildare.

Land Use and Recreation

The general receiving environment is rural and is concentrated in fringe areas around cutaway bogs and within pastoral farmland. The North Kildare Wind Farm site is located between the towns Enfield and Prosperous in County Kildare. All of the towns and villages in the surrounding areas have sports, recreational and community facilities.

Population

The area in question is lightly populated with low density individual rural dwellings with the main concentration of dwellings and population within the adjacent settlements.

Socio-Economics

There are 60 residential properties and 9 no. both residential and commercial and 2 commercial properties located within 1km of the proposed turbine locations.

Tourism is recognised within Kildare as having potential to contribute to the local economy. The Great Plains of the Curragh, the Barrow Way, the Curragh Military Museum, the Bog of Allen Centre and Lullymore Heritage Park are amongst some of the main attractions that County Kildare offers tourists. Grand Canal Way is located approximately 9km south of the proposed development site, a greenway/walking route and navigational connection between Dublin and Shannon Harbour.

Material Assets

The site lies c. 2.8km south of the motorway M4 at Enfield and 1.2km southeast of the regional road R402 linking the M4 to the R420 east of Tullamore in County Offaly. Power lines at various voltages cross the area and water mains are present in the vicinity of towns and villages.

5.7.4 Potential Impacts

Health and Safety

It is anticipated that the proposed North Kildare Wind Farm is not likely to have a potential significant impact on human health and safety.

Land Use and Recreation

The wind farm will require land take for the access tracks, wind turbines bases and adjacent hard-standings and sub-station footprints. The current land uses will continue other than within this land take.

Potential construction impacts from the grid connection cables include full or partial closure of roads used to access amenities, sports and recreational facilities within the area, while the cables are being installed. There may be disruption to access routes and walking paths, which are adjacent to the rivers and streams however any disruption will be mitigated where possible by maintaining access for people throughout, and where this is not possible, in minimising the impact, clearly communicating the timing and scope of works to the local community.

Population

Given the policy objective of the Kildare County Development Plan, it is unlikely that the proposed development will have a significant impact on the population of the area. It is an objective of the Kildare County Development Plan to concentrate population increase into the adjacent settlements.

Socio-Economics

The proposed development will have significant long term and short-term benefits for the local economy including job creation, landowner payments, local authority commercial rate payments and a Community Benefit Scheme.

Material Assets

Utilities such as overhead power lines or telephone lines or underground services may require diversion or be temporarily disrupted during the construction of the wind farm or cable trench. This has the potential to impact on nearby dwellings and commercial / industrial activities.

5.8 Environmental Aspect: Shadow Flicker

5.8.1 Aspects to be addressed

This chapter will address the potential effects on human beings of shadow flicker, i.e. the moving shadows cast by the turbine blades in times of direct sunlight.

5.8.2 Assessment Methodology

A shadow flicker assessment will be carried out using ReSoft Wind farm software which will calculate times throughout the year when a turbine, viewed from the window of a house, is in line with the sun, and therefore the potential exists for shadow flicker to occur. All occupied and unoccupied dwellings and permitted houses (that are not yet constructed) within 10 rotor diameters of a proposed turbine will be included in the assessment.

The outputs of the modelling assessment will be used to identify the potential direct and indirect impacts of shadow flicker on dwellings. The results will be compared with relevant guidance including:

- Section 5.12 of the 2006 Department of Arts, Heritage and the Gaeltacht (DoEHLG) Planning Guidelines on Wind Energy Developments (2006)⁴ or the latest revision adopted at the time of application.
- The Irish Wind Energy Association 'Best Practice Guidelines for the Irish Wind Energy Industry' (2012)⁵.

⁴ Department of the Environment, Heritage and Local Government (2006) "Wind Energy Development Planning Guidelines", Oireachtas: Dublin 2.

⁵ Irish Wind Energy Association "Best Practice Guidelines for the Irish Wind Energy Industry" (2012), <http://www.iwea.com/contentFiles/Documents%20for%20Download/Publications/IWEA%20Policy%20Documents/IWEA%20best%20practise%20guidelines.pdf> Accessed March 2016

Cumulative impacts of the proposed North Kildare Wind Farm and other third-party schemes will be assessed. IWEA Best Practice Guidelines (2012, Section 6.3.4) states that *"any such wind farm developments within 2 km of the proposed development should be considered in a separate cumulative shadow flicker assessment."* There are no other known proposed, consented or existing wind farms within this distance of the proposed North Kildare Wind Farm.

5.8.3 Receiving Environment

The general receiving environment is rural. The majority of buildings in the vicinity of the proposed development are residential or agricultural buildings. A total of 60 residential dwellings have been identified as falling within 1km of a proposed wind turbine and 9 which are both residential and commercial and 2 commercial properties. The closest occupied dwelling to the current proposed layout is located 422m from the nearest proposed turbine location (This landowner is involved in the project).

5.8.4 Potential Impacts

In times of direct sunshine, wind turbine blades could occasionally cast moving shadows on residences in close proximity to the turbines. At certain times of the year, the moving shadows of the turbine blades can periodically reduce light to a room causing the light to appear to flicker. Shadow flicker would not generally have any effect on health or safety, but could on limited occasions present a brief nuisance effect.

5.9 Environmental Aspect: Noise and Vibration

5.9.1 Aspects to be addressed

The chapter will address noise and vibration impacts from the construction and operation of the proposed wind farm.

5.9.2 Assessment Methodology

The noise assessment will be carried out on each phase of the wind farm:

- Construction phase
- Operational phase, including turbine and sub-station operations
- Decommissioning phase, including dismantling the turbines, and related traffic.

Construction and Decommissioning Noise Assessment Methodology

Construction and decommissioning noise impacts will be determined at the closest receivers. Prediction modelling will be undertaken to assess the construction impact from road building, use of borrow pits and movement of heavy goods vehicles. This modelling will be completed applying British Standard BS 5228:2009 +A1:2014 'Code of practice for noise and vibration control on construction and open sites Part 1 Noise' using the best available information at the time of preparing the assessment.

Construction noise limits from the following will be used:

- BS 5228 Part 1:2009 +A1:2014 Code of practice for noise and vibration control on construction and open sites Part 1 Noise (Applies to residential receptors)
- National Roads Authority Guidelines for the Treatment of Noise and Vibration in National Road Schemes

Operational Noise Assessment Methodology

At the time of preparing this report, the Department of the Environment, Community and Local Government is undertaking a targeted review of the 2006 Wind Energy Development Guidelines for noise and shadow flicker. The implications of this review and the subsequent adopted changes may affect how the operational noise assessment is undertaken and the limits on which compliance is determined. The developer will comply with any new guidelines as they are adopted.

For the purpose of this scoping document we propose the following methodology in line with the current guidelines including the Wind Energy Development Guidelines (2006) and the Best Practice Guidelines for the Irish Wind Energy Industry (2012) prepared by the Irish Wind Energy Association.

Scoping of Study Area/Preliminary Assessment - Prediction modelling will be undertaken on the preliminary turbine layouts to ascertain the potential operational noise emissions from the wind farm on noise sensitive receivers (defined in accordance with the DoEHLG Wind Energy Development Guidelines 2006).

In accordance with the Institute of Acoustics (IOA) good practice guide, a study area for the wind farm will be developed by generating a 35dB L_{A90} contour using the candidate turbine's rated sound power level.

Baseline Monitoring – Baseline noise data from field surveys at selected noise sensitive receivers and proxy locations will be used to determine prevailing background noise levels for daytime and night-time periods.

Data Analysis and Limit Derivation - The baseline sound level monitoring data will be correlated with the wind speed. Rainfall events, periods affected by rainfall, periods affected by dawn chorus and atypical data will be removed from further analysis. The filtered data will and then plotted to provide wind speed versus averaged background noise levels at each monitoring location. Each plot will determine the averaged prevailing background noise level for increasing wind speeds and allow derivation of daytime and night-time noise limits based on the DoEHLG guideline criteria (whichever is applicable to each wind speed):

- 35 - 40 dB L_{A90} for daytime periods of low background noise levels of less than 30 dB L_{A90}
- 45 dB L_{A90} for daytime periods of background noise exceeding 30 dB L_{A90}
- 43 dB L_{A90} for night-time periods, or 5 dB (A) above background noise levels for all periods where applicable.

Impact Analysis - Prediction modelling will be conducted modelling all wind speed sound power levels available for the candidate turbine type to provide noise prediction levels for each noise sensitive location within the study area. The prediction parameters will be those described in the Institute of Acoustics' ETSU A Good Practice Guide to the Assessment and Rating of Wind Turbine Noise⁶. Cumulative noise modelling will also be undertaken to determine sound pressure level contributions from any surrounding wind farms.

The predicted levels will be appraised against the derived daytime and night-time noise limits for compliance.

5.9.3 Receiving Environment

The closest occupied dwelling to the current proposed layout is located 422m from the nearest proposed turbine location (this landowner is involved with the project).

5.9.4 Potential Impacts

Potential impacts of potential noise nuisance will be addressed at the design stage by locating turbines at sufficient separation distances or by employing reduced turbine noise modes to comply with the noise limits in force at the time of application.

⁶ A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise, The Institute of Acoustics, May 2013

5.10 Environmental Aspect: Traffic and Transportation

5.10.1 Aspects to be addressed

The traffic impact assessment will address the traffic impacts on the road network from the construction and operation of the proposed North Kildare Wind Farm. The assessment will include the supply of materials, plant and equipment, the turbine elements and the components of the sub-station. Traffic arising from the construction and operations workforce will also be addressed.

5.10.2 Assessment Methodology

A traffic impact assessment will be conducted in accordance with the Transport Infrastructure Ireland (TII) Traffic and Transport Assessment (TTA) Guidelines, May 2014. Data collected from road traffic surveys along the delivery route will be used in the assessment.

Auto Track vehicle swept path analysis will be conducted for all internal tracks to ensure that they are adequate to allow delivery of turbine components while also minimising the required land take where feasible.

The methodology for the traffic impact assessment will include a review of the traffic volumes and impacts which will be generated by the construction and operation of the wind farm. The traffic generated by the construction workforce, by the transport of materials and equipment as well as future maintenance-related activities will be predicted. The traffic distribution pattern on the local road network during construction will be examined and impacts determined. The potential disruption to the road network during the installation of the cables and the availability of alternative routes will be assessed, where required. Recommendations will be made to mitigate any potential traffic impacts on the road network.

5.10.3 Receiving Environment

The area in which proposed North Kildare Wind Farm is proposed is served by a network of national primary, secondary and tertiary roads. This road network provides good connections to ports and sources of construction materials. It is likely that Dublin Port will be used for the import of the turbines. Dublin Port is located some 43 km from the proposed development along the M4 before travelling on the regional road (R402) and finally local road (L5025) to the entrance of the site.

5.10.4 Potential Impacts

A Traffic Impact Assessment will address the traffic impacts on the road network for both the construction and operation of the proposed North Kildare Wind Farm. The assessment will include the supply of materials, plant and equipment, the turbine elements and the components of the substation. Traffic arising from the construction and operations workforce will also be addressed.

The traffic impact assessment will be conducted in accordance with the Transport Infrastructure Ireland (TII) Traffic and Transport Assessment (TTA) Guidelines, May 2014. Data collected from road traffic surveys along the delivery route will be used in the assessment. The impact assessment will include a review of the traffic volumes and impacts which will be generated by the construction and operation of the proposed wind farm. The traffic generated by the construction workforce, by the transport of materials and equipment as well as future maintenance-related activities will be predicted. The traffic distribution pattern on the local road network during construction will be examined and impacts determined. The potential disruption to the road network during the installation of the cables and the availability of alternative routes will be assessed, where required. Recommendations will be made to mitigate any potential traffic impacts on the road network.

The greatest potential for traffic impact from the proposed North Kildare Wind Farm is during the construction phase which will give rise to additional traffic on the road network.

The turbines will be delivered to the site in separate parts, typically comprising of loads for each of the towers, the rotor blades, the nacelle, the rotor hub, the turbine base and the electrical components. The delivery route from the port into which the components are shipped, to the proposed wind farm site will use the national primary route network as much as possible. Modifications may be required to the existing local road network to cater for the delivery of the oversized loads.

Stone aggregate will be required for the upgrading of existing tracks and construction of new site road as well as the construction of turbine bases and hardstands. All of these activities have the potential to generate significant local traffic numbers.

The nature of the local road network in the vicinity of the proposed wind farm site is such that widening/improvement works may be required to accommodate construction traffic. There will be an increase in local traffic during the construction of the wind farm; staff, including plant operators, electricians, engineers and trades people, will be commuting to and from the site each morning and evening. In addition, there is likely to be an increase in local traffic due to onlookers as the turbines are erected.

There will also be temporary traffic impacts from cable laying works on the public roads. These impacts will be managed to reduce the nuisance being caused to local road users.

5.11 Environmental Aspect: Air Quality and Climate

5.11.1 Aspects to be addressed

The assessment will address the potential impacts on air quality due to construction equipment and activities and to emissions from traffic associated with the construction process. The potential impacts on air quality in the operational phase will also be addressed.

The climate in the immediate local area of a proposed development is known as the micro-climate whereas the climate of a large geographical area (global) is the macro-climate. The potential impacts of North Kildare Wind Farm on micro-climate and macro-climate will be addressed.

5.11.2 Assessment Methodology

Air quality monitoring conducted by the EPA at a number of locations in the vicinity of the site will be reviewed and levels compared with the air quality standards. To assess the impacts of construction dust emissions, the approach and assessment criteria outline in the *Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes* (NRA, 2008) will be used.

For the purposes of assessing the impact on air quality of emissions generated by construction traffic, the methodology described in the Design Manual for Roads and Bridges 2007a (UK Highways Agency, May 2007) will be used. Parameters to be assessed will include oxides of nitrogen, particulates PM10 and PM2.5, carbon monoxide and benzene.

The potential micro-climatic impacts of North Kildare Wind Farm will be assessed in relation to the micro-climatic baseline, the scale of the elements of the project and the nature of use of the surrounding environment. For the assessment of macro-climatic effects, the emissions of carbon dioxide (CO₂) and other greenhouse gases from fossil fuel power generation, which will not be required should the North Kildare Wind Farm become operational, will be quantified and assessed in terms of Ireland's commitments under EU and international climate change treaties and protocols.

5.11.3 Receiving Environment

In terms of micro-climate, the wind farm is located in a mainly rural area corresponding to air quality zone D, Rural Ireland, in the Air Quality Regulations SI 180 of 2011, as amended. The air quality is expected to be good.

The macro-climatic baseline is the future emission of CO₂ and other greenhouse gases, which would be produced by fossil fuel power generation in the country, in the absence of the proposed North Kildare Wind Farm.

5.11.4 Potential Impacts

The assessment will address the potential impacts on air quality due to construction equipment and activities and to emissions from traffic associated with the construction process. The potential impacts on air quality in the operational phase will also be addressed.

The construction phase of the proposed North Kildare Wind Farm has the potential to generate dust emissions, which could give rise to nuisance for local residents.

To assess the impacts of construction dust emissions, the approach and assessment criteria outlined in the *Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes* (National Roads Authority, 2008) will be used.

Construction plant and equipment, and the traffic generated by the construction process, have the potential to give rise to emissions of oxides of nitrogen, benzene and particulates, which could impact on local air quality. The operation of the proposed North Kildare Wind Farm is not expected to have a negative impact on air quality.

The proposed North Kildare Wind Farm is expected to have a positive impact on emissions of CO₂ and other greenhouse gases. For the assessment of macro-climatic effects, the emissions of CO₂ and other greenhouse gases from fossil fuel power generation, which would not be required when North Kildare Wind Farm is operational, will be quantified and assessed in terms of Ireland's commitments under EU and international climate change treaties and protocols.

It is expected that the proposed development will have a positive impact on Air Quality including NO_x and SO_x a calculation of same will be included in the EIAR.

5.12 Environmental Aspect: Biodiversity

5.12.1 Aspects to be addressed

This chapter of the EIAR will address the terrestrial and freshwater aquatic habitats and species, including those of conservation concern within and in close proximity to the wind farm; including along and in close proximity to the on-site cable routes; on and in close proximity to the sub-station, tree felling and any required replanting. It will also address the potential impacts on ecology from the proposed underground cable between the wind farm and the grid connection as well as any proposed alterations to the public road network required for the delivery of turbine components.

In particular, the assessment will focus on:

- Natura 2000 sites i.e. Special Areas of Conservation designated under the EU Habitats Directive (Council Directive 92/43/EEC) and Special Protection Areas designated under the EU Birds Directive (Directive 2009/147 EC), within 15km of the proposed sites and routes.
- Other designated sites such as Natural Heritage Areas, proposed Natural Heritage Areas, Nature Reserves and Refuges for Fauna or Flora
- Habitats listed in Annex I of the Habitats Directive
- Birds listed in Annex I of the Birds Directive
- The impact on any flight paths of bird and bat species
- Species protected under the Wildlife Acts
- Protected flora under the Flora Protection Order (2015)
- Habitats that can be considered as corridors for the purposes of article 10 of the Habitats Directive
- Red data book species
- And biodiversity in general.

5.12.2 Assessment Methodology

Desk studies will be undertaken in which ecological databases, such as those of the National Parks and Wildlife Service (NPWS), EPA and NBDC will be consulted. The NPWS, Inland Fisheries Ireland and the main environmental non-governmental organisations have been or will be consulted.

Bird survey methods have been selected following a review of best practice guidelines, including guidance available from Scottish Natural Heritage (SNH), and following consultation with NPWS and other bodies such as BirdWatch Ireland. The ecological surveys commenced in 2013 and are ongoing at the site.

The surveys conducted / currently being conducted include the following elements:

- Vantage Point (VP) surveys for target species during the winter seasons 2016/17 and 2017/18 (October to March inclusive) and the breeding season 2017 (April-August) have been conducted. The second year of breeding surveys are ongoing having recommenced in May 2018. This involved monthly VP surveys from pre-designated VP locations, with 2x3hr timed watches at each VP each month.
In line with recommended best practice², viewshed analysis was undertaken using ARCMAP 10.3, to calculate a theoretical zone of visibility from each vantage point. Visibility is calculated from each vantage point along an invisible layer suspended at the predicted lowermost height passed through by the rotor blade tips, using an observer height of 1.5m.
- Breeding bird transects were carried out during the period of April to July 2017. Two surveys were carried out, one early (early-April to mid-May) and one late (mid-May to late-June) in the bird breeding season. Breeding wader surveys were carried out in conjunction with breeding bird transects. These shall include three visits - All suitable habitats for waders were visited, at four-week intervals, during the months of April, May and June 2017. Breeding Merlin Survey were also carried out in 2017.
- A dedicated winter wildfowl census of the subject sites was conducted, targeted at species of swans and geese, is carried out on a monthly basis from October to April (inclusive). This involves a 'look-see' style approach where surveyors visited all known locations of feeding and/or roosting wildfowl and counted birds in situ.
- Bat activity surveys are ongoing within the site commencing in May 2018. Evidence of bat roosts were searched for and information on all potential roosts were recorded according to roost identification guidelines 'Bat Survey Guidelines: Traditional Farm Buildings Scheme', Aughney, T., Kelleher, C. & Mullen, D. (2008). All potential roosting sites within 500m of the proposed study area were surveyed during activity surveys.
- Current guidance states^{7,8} that bat surveys for wind farm applications must include surveys from height i.e. within the sweep of proposed turbine blades to assess the potential impact to high flying species like Leisler's Bat. This was carried out during 2017.
- An assessment of potential habitats including foraging, commuting and roosting habitats was conducted along each of the gird and haul route options. Bridges along the route option were graded for their potential as a bat roost on the basis of the Billington and Norman (1997) methodology as outlined in Aughney, 2008⁹.
- The habitats within the site of the proposed development have been identified and classified, according to 'A Guide to Habitats in Ireland' (Fossitt, 2000¹⁰), during a walkover survey of the site over the period 2013 – 2016 and will be updated and ground-truthed in 2017. The dominant plant species present in each habitat type was recorded.

⁷ Guidelines for consideration of bats in wind farm projects. Eurobats Publication Series No. 6 (English version) http://www.eurobats.org/publications/eurobats_publication_series

⁸ Bat Conservation Ireland Wind Turbine/Wind Farm Development Bat Survey Guidelines (2012): <http://www.batconservationireland.org/pubs/reports/BCIreland%20Wind%20Farm%20Turbine%20Survey%20Guidelines%20Version%202%2008.pdf>

⁹ Aughney, T., Kelleher, C. & Mullen, D. (2008). Bat Survey Guidelines: Traditional Farm Buildings Scheme. The Heritage Council, Aras na hOidhreachta, Church Lane, Kilkenny.

¹⁰ Fossitt, J. A. (2000). A Guide to the Habitats in Ireland. The Heritage Council.

Habitats shall be appraised and evaluated according to their occurrence as protected habitats under Annex I of the EU Habitats Directive (92/43/EEC) and for their capacity to support rare, threatened and endangered species. The methodology used to assess the impact on habitats is based on NRA guidelines (2009¹¹), CIEEM guidelines and EPA guidelines. The habitat mapping exercise had regard to the 'Best Practice Guidance for Habitat Survey and Mapping' (Smith et al., 2011¹²) published by the Heritage Council. In addition to habitat identification, each habitat will be assessed for its ecological significance, based on the National Roads Authority (NRA) Site Evaluation Scheme (NRA, 2009).

- A targeted mammal survey has been carried out within the study area in 2017 as there are records of badger, red squirrel and otter in the greater study area. This will be re-surveyed in 2018. As well as direct observations of mammal, features such as tracks, trails, fur, droppings and shelter (setts, dreys and holts) were also recorded using GPS. Application for Wildlife Derogation Licences shall be made to NPWS to mitigate the potential impact to protected species. These applications shall be agreed pre-planning as per recommended guidance.

5.12.3 Potential Impacts

This chapter of the EIAR will address the nationally designated sites, terrestrial and freshwater (aquatic) habitats and species, including those of conservation concern on and in close proximity to the wind farm and including along and in close proximity to the proposed cable route and proposed haul route.

The ecological evaluation of the site and its' Biodiversity will be assessed according to NRA (2009). Once the value of the identified ecological receptors (features and resources) is determined, the next step will be to assess the potential impact and resulting effect of the proposed development on the identified key ecological receptors.

This will be carried out with regard to the criteria outlined in various impact assessment guidelines (NRA, 2009; CIEEM, 2016). The impacts will be assessed under a number of parameters such as magnitude, extent, timing, frequency, duration and reversibility. The impact significance criteria detailed in the EPA guidelines (EPA, 2002) will be used where applicable.

Potential impacts of the wind farm on Biodiversity include:

- Direct loss of habitat due to the footprint of the area;
- Damage to adjacent habitats during construction which could potentially be affected by construction activity;
- Impacts during construction on the hydrology of water dependant habitats
- Impacts on water quality both at a local level and regional level due to pollution run-off whether during or post construction;
- Impacts on aquatic species during construction or due to pollution events etc.;
- Disturbance to local wildlife, including loss of habitat, disturbance and displacement;
- The potential collision risk to birds and bats;
- Damage to or habitat loss of important wildlife corridors or stepping stones during construction. Fragmentation of same at a larger more regional level as a result of habitat loss;
- The introduction of alien invasive species during construction;
- Displacement of bird species from limited breeding areas;
- Displacement or disturbance to breeding waders from areas within the proposed wind turbine envelope;
- Barrier effect on migrating birds, whereby individual species' dispersal or migration routes are affected by the placement of turbines which effectively cause a barrier;
- Impacts on the conservation status or constituent parts of designated sites.

¹¹ NRA (2009). Environmental Assessment and Construction Guidelines. Published by the National Roads Authority.

¹² Smith, G.F., O'Donoghue, P, O'Hora K., and Delaney, E. (2011). Best Practice Guidance for Habitat Survey and Mapping. Published by the Heritage Council.

- Potential impacts associated with tree felling and any required replanting on designated sites, habitats, Biodiversity.

Potential impacts on European (Natura 2000) sites as a result of the proposed development will be assessed through the appropriate assessment process.

5.12.4 Appropriate Assessment

An Appropriate Assessment Screening Report and if required a Natura Impact Statement will be prepared in respect of the proposed development, so as to enable the competent authorities to carry out an Appropriate Assessment as required by Article 6(3) of Council Directive 92/43/EEC ("the Habitats Directive") and section 177U of the Planning and Development Act 2000, as amended ("the 2000 Act"). The potential impact to European sites due to tree felling and any proposed replanting shall also be considered.

In compliance with the aforementioned provisions of Article 6(3) of the Habitats Directive and section 177U of the 2000 Act, a Screening Appropriate Assessment of an application for consent for proposed development shall be carried out by the competent authority or authorities to assess, in view of best scientific knowledge, if that proposed development, individually or in combination with another plan or project is likely to have a significant effect on a European site, in view of the site's conservation objectives.

Where negative impacts on a Natura 2000 site cannot be discounted during Stage 1 Screening for Appropriate Assessment, the Assessment must proceed to Stage 2 and a Natura Impact Statement prepared at which point a detailed, targeted assessment of the nature and potential significance of direct and indirect impacts arising from the proposed project must be completed and an assessment as to whether the integrity of the Natura 2000 site would be adversely affected.

European sites, as defined in the 2000 Act, comprise both Special Protection Areas (SPAs) for birds and candidate Special Areas of Conservation (cSACs) for habitats and other species, and are designated by Member States pursuant to the requirements of Council Directive 79/409/EEC, now Directive 2009/147/EU, on the conservation of wild birds ("the Birds Directive") and the Habitats Directive, respectively.

Article 6(3) of the Habitats Directive envisages a two-stage assessment process, which is implemented into Irish law (with some additional requirements) by the provisions of sections 177U and 177V of the 2000 Act. Screening for AA in accordance with section 177U is the first stage of the AA process ("Stage One"), in which the possibility of there being a significant effect on a European site is considered. Plans or projects that have no appreciable effect on a European site are thereby excluded, or "screened out", at this stage of the process. Where, however, the competent authority's screening assessment concludes that there is potential for significant effects, then it is necessary to carry out an Appropriate Assessment (AA) ("Stage Two") for the purposes of Article 6(3), and a Natura Impact Statement (NIS) is prepared and submitted to the competent authority.

The first step in the screening process is to develop a list of European sites which may have the potential to be affected by the proposed development. Each relevant European site is reviewed to establish whether or not the proposed development is likely to have a significant effect on the European site. The site is not located within a designated nature conservation site. Figure 2.3 illustrates the location of the proposed development in relation to Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs). There are eight European sites located within 15km of the proposed development, namely:

- River Boyne and River Blackwater cSAC* (002299) - 9.8km
- River Boyne and River Blackwater SPA (004232) - 10km
- Ballynafagh Bog cSAC (000391) - 5.7km
- Ballynafagh Lake cSAC (001387) - 5km
- Rye Water Valley/Carnton cSAC (001398) - 13.5km
- Mount Hevey Bog cSAC (002342) - 14.5km
- The Long Derries cSAC (000925) - 6.4km
- Mouds Bog cSAC (002231) - 14km

There are downstream hydrological links between the proposed development and the River Boyne and River Blackwater cSAC and the River Boyne and River Blackwater SPA, in addition to the Rye Water/Carton cSAC. Indirect impacts which could potentially occur via pollutant, and sediment and therefore mitigation measures will need to be adopted.

For each European Site, the qualifying interests or special conservation interests of each European site will be identified and the potential effects summarised under the following headings for the purposes of the screening process:

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can arise as a result of a change in land use or management, such as the elimination of agricultural practices that prevent scrub encroachment.
- Indirect and secondary may arise, for example, when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site, and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality could occur as both an indirect and direct consequence of a particular development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact, which results in increased movement of vectors (humans, fauna, surface water), and consequently the transfer of alien species from one area to another.
- Disturbance to fauna can arise directly through the loss of habitat (e.g. otter holts) or indirectly through noise, vibration and increased activity associated with construction and operation.

In the event that significant effects cannot be ruled out during the Stage 1 Screening for Appropriate Assessment, the process proceeds to Stage 2 Appropriate Assessment and a Natura Impact Statement is prepared. During Stage 2 AA, the effect of the project on the integrity of the European site(s), as defined by its structure and function, and its conservation objectives is appraised. Potential impacts on species or habitats will be evaluated with respect to the scale, extent and nature of the impact, for example the area of habitat affected, changes in hydrodynamics, the percentage reduction in species density, potential changes in species distribution. The duration of the impact will be determined in terms of the duration of the works and also the amount of time required for the species and / or habitat to be replaced or to recover from the impacts. During Stage 2 of the AA process, mitigation measures can be developed to minimise effects on European Sites.

Mitigation measures will follow the mitigation hierarchy:

1. Avoidance
2. Reduction
3. Remedy

For each mitigation measure the following will be provided:

- Details of how the mitigation will be secured and implemented
- Evidence of the degree of confidence in their likely success
- A timescale of when they will be implemented
- Details of how the mitigation measures will be monitored and how any mitigation failure will be addressed.

5.13 Environmental Aspect: Land, Soils, Geology, Hydrogeology and Slope Stability

5.13.1 Aspects to be addressed

The assessment will address soils, bedrock and groundwater underlying the wind farm.

5.13.2 Assessment methodology

The methodology for the soils and geology assessment will be in accordance with the guidelines published by the Institute of Geologists of Ireland in 2013, 'Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements'.

Site walkovers will be undertaken. Each site walkover will include peat probes and/or use of a hand vane/gouge cores at selected locations to confirm the presence and/or depth of peat (if present) across the sites. In addition, the following will also be conducted:

- A review of the characteristics of the entire site (ground conditions, topography, vegetation cover/condition and peat formation, if any, across the site)
- Identification of past and present land use on the site (grazing, forestry etc.) and their current impact on the existing ground conditions
- Identification of potential borrow pit site locations (if required)
- Identification of areas for possible storage/reinstatement of peat or other materials
- Identification of potential for peat landslide - With reference to slope stability issues in areas where peat is present, reference will be made to the Guidance Note for Peat Landslide Hazard and Risk Assessments Best Practice Guide for Proposed Electricity Generation Developments.

The data gathered will be used to inform the final location of all turbines and associated infrastructure.

An earthworks balance calculation will be prepared for the overall development to assess where excavated material can be beneficially re-used. In addition, an assessment of the volumes of raw material will be made which will in turn be used to determine the number and size of borrow pits required.

5.13.3 Receiving Environment

The Geological Survey of Ireland (GSI) 1:100,000 scale bedrock geology map shows that the wind farm site is underlain by the Carboniferous Waulsortian Limestones. The site is underlain by Cutaway raised bogs and limestone till (poorly drained) from the Carboniferous.

The subsoils present at the proposed wind farm site are taken from the GSI online mapping and comprise:

- Glacial till derived chiefly from limestone bedrock (TLs) and;
- Cutover raised peat (Cut);

5.13.4 Potential Impacts

The potential impacts of the development of the wind farm on the geology, hydrogeology and slope stability are:

- The excavation and removal of soil and rock and interference with any existing site drainage is a potential direct permanent effect that, without mitigation, could alter the existing hydrogeological balance of the site;

- The construction of the turbines, hardstanding areas, access tracks, borrow pits and cable trenches has the potential to cause hydrogeological impacts by modifying the natural groundwater levels adjacent to the excavation. This in turn may deprive ditches and streams of their natural supply of water which may lead to reduced base flow and recharge to the bedrock aquifer;
- Areas which are underlain by peat deposits are susceptible to slope stability issues, including peat slides and bursts, when changes are made to topography, hydrogeology and hydrology of the site;
- The use of granular fill and other materials for the construction of the access tracks has the potential to have a permanent impact on the source quarries or borrow pits;
- Excavations have the potential to increase erosion and sediment release that could also have additional impacts on water quality due to sedimentation of water courses;
- Soil compaction may occur due to movement of construction and maintenance traffic;
- Removal of sub soils may result in the exposure of the underlying rock to sources of contamination and may increase the vulnerability of the aquifer, whether or not the rock is exposed;
- Chemical pollution may occur as a result of an accidental spillage or leakage of chemicals, runoff from vehicle washing facilities, unset concrete, storage of fuels or refuelling activities, etc. Chemical pollutants may enter the groundwater and have implications for ecology and any wells in the area, particularly those located down-gradient of the site.
- Sanitary waste arising from temporary construction compounds could lead to contamination of groundwater

At the substation, the potential impacts are the pollution of groundwater from an oil or fuel spillage during construction. The sub-station and the construction compound will have staff welfare facilities.

5.14 Environmental Aspect: Water Quality and Hydrology

5.14.1 Aspects to be addressed

The assessment will address impacts on hydrology and water quality. The aspects of the hydrological environment that could be affected by the activities associated with the proposed North Kildare Wind Farm will also be addressed.

5.14.2 Assessment Methodology

The assessment will consist of a review of existing baseline data including water quality data from the EPA, River Basin Management Plans and flood risk data from the Office of Public Works (OPW). The objectives of the relevant River Basin Management Plans in relation to water quality will be considered. The review will include the Kildare County Development Plan 2014-2020 and consideration of the policies and objectives of the Plan in relation to surface water and flooding. The assessment will be prepared in accordance with the EPA and OPW guidance. Any concerns expressed by consultees such as Inland Fisheries Ireland and relevant local authorities, relating to hydrology and drainage, will be addressed.

The review will have regard to the baseline data and the studies undertaken for the assessment of impacts on terrestrial and fresh water ecology, geology and hydrogeology in relation to environmentally protected areas, receiving waters and soil conditions.

It is proposed to conduct grab sampling of water courses which could potentially be impacted by construction of the wind farm, where gaps are identified in the review of published data. The scope of this sampling will be agreed with Inland Fisheries Ireland and will also follow relevant guidance for determining baseline water quality.

Site visits consisting of a walkover of the wind farm site will be undertaken. These surveys will include noting the hydrological features and land use across the site. The information gained on these site visits will provide input into the final design layout with the aim of minimising river/stream crossings, providing a buffer to hydrological features and avoiding areas of significant flood risk.

The Hydrology Chapter will include a section on flood risk identification and assessment. This will include an assessment of the potential increase to flooding elsewhere and it will examine the potential flood risk to the proposed development. The type of development will be assessed in accordance with the Planning System and Flood Risk Management Guidelines for Planning Authorities, November 2009. Any increase in hard surfaces on the site will be quantified and the impact of this modelled in the downstream structures over watercourses, where flood incidents have been recorded by the OPW. Cumulative impacts with neighbouring developments will also be tested in the model where appropriate.

A peat stability assessment will be carried out to determine potential peat stability issues.

Where parts of the development are located on areas encroaching on floodplains, this may require additional drainage measures and further measures required to mitigate flood risk. Mitigation, such as attenuation of surface water run-off from the site, will be proposed where increases in flood risk are deemed to be significant.

In the case of essential infrastructure such as a sub-station, these are not permitted to be located in a floodplain. The sub-station for the proposed North Kildare Wind Farm is not located within a Flood Zone A area (AEP 1%).

For the access tracks, the stream crossings will be identified and a preliminary design of the proposed stream crossings prepared. The accommodation of overland flow will be assessed and suitable locations for the treatment of discharges identified.

The following will also be included as part of the assessment for Hydrology:

- Identify potential impacts of the proposed development on hydrology (hydrodynamics and flooding).
- Identify potential cumulative hydrological impacts of the proposed development with any neighbouring wind farms.
- Consider potential drainage into sensitive catchments.
- Site drainage investigation will involve identification of drainage sub-catchments, studying the requirement(s) of cross-drainage works, if any, exploring the infiltration potential of the soils in the area, etc.
- Identification of mitigation measures for flooding and pollution of receiving waters.
- Identification of residual impacts.

5.14.3 Receiving Environment

The proposed North Kildare Wind Farm extends over the Eastern River Basin District (ERBD) and the South Eastern River Basin District (SERBD). The relevant waterbodies and the associated turbines, located within these waterbody catchments within the proposed North Kildare Wind Farm development are identified as follows:

- EA_Boyne159BlackwaterLongwood_BlackwaterTRIB_FearEnglish
- EA_Boyne159BlackwaterLongwood_Blackwater2_Upper
- EA_Boyne159BlackwaterLongwood_BlackwaterTRIB_Deryvarroge

The Fear English River cuts through the centre and travels along its eastern boundary (of the westernmost turbines) and its tributary the Kilcooney River the River Blackwater and the Clogheraun Stream drain the eastern most lands to the east.

5.14.4 Potential Impacts

The assessment will address impacts on water quality in the receiving watercourses. The aspects of the hydrological environment that could be affected by the activities associated with the proposed North Kildare Wind Farm will also be addressed.

The assessment will consist of a review of existing baseline data including water quality data from the EPA, River Basin Management Plans and flood risk data from the OPW.

The review will include the County Development Plan and consideration of the policies and objectives of the Plan in relation to surface water and flooding. The assessment will be prepared in accordance with the EPA and OPW guidance and will include a site walkover. Any concerns expressed by consultees such as Inland Fisheries Ireland and relevant local authorities, relating to hydrology and drainage, will be addressed.

The main potential impact from the construction of the wind farm is the sedimentation of watercourses. Rainfall run-off containing silt could potentially lead to siltation and consequent physical effects on Biodiversity in aquatic habitats.

Sediment has the potential to arise from:

- Temporary spoil heaps from the excavations for the turbine bases; if left exposed, the spoil heaps could lead to an increase in silt-laden run-off draining off site.
- Haulage roads passing close to watercourses could allow the migration of silt-laden run-off into watercourses (crushable stone in site access roads could lead to heavy vehicles creating fines in the stone with a subsequent loss of sediment in the surface water run-off).
- Silt carried on the wheels of vehicles leaving the site could be carried onto the public road.
- Tree felling could lead to an increase in sediment in the surface water run-off.
- While the cable trench is open adjacent to a watercourse and at stream crossings, this could lead to an increase in the concentration of suspended solids in the watercourse.

In addition, possible impacts on water quality during construction activity include:

- Concrete operations could contaminate receiving waters.
- Runoff from vehicle washing facilities could lead to contamination of receiving waters.
- Refuelling activities could result in fuel spillages.

The potential impacts on hydrology and drainage that may arise from the proposed development of the wind farm site include impacts on localised flooding patterns and downstream structures as well as cumulative hydrological impacts with neighbouring developments including neighbouring wind farms.

At the temporary compound, the potential impacts are the pollution of surface water from an oil or fuel spillage during construction.

During the operational phase of the wind farm, potential impacts on water quality will primarily arise from the use of lubricants, coolants and hydrocarbons in the operations of the turbine transformers as well as routine maintenance of all plant and equipment.

5.15 Environmental Aspect: Archaeological, Architectural and Cultural Heritage

5.15.1 Aspects to be addressed

The assessment will address features and sites of archaeological, architectural and cultural heritage significance. The purpose of the study will be to assess the significance of the receiving cultural heritage environment and to identify and evaluate the magnitude of the impact of the proposed wind farm on the sensitivity of each cultural heritage feature within this environment and on the broader historic character of the landscape. Measures will be proposed to mitigate effects (where possible) so as to allow a fully informed decision to be made by the adjudicating authority.

5.15.2 Assessment Methodology

The assessment will comprise a desk study and field walkover survey.

Desk Study

A review of the following information will be carried out to inform the cultural heritage assessment report:

- A review and collation of information obtained from public and statutory consultees, for example nationwide surveys such as the Record of Monuments and Places (RMP) (including National Monuments in State Care, NIAH, RPS and landscape characterisation
- A review of designated archaeological landscapes
- A review of the Record of Protected Structures and Architectural Conservation Areas (ACA's) in the Kildare County Development Plan 2014-2020
- A review of the National Inventory of Architectural Heritage (NIAH) building survey sites, NIAH historic gardens and designed landscapes survey sites
- A review of artefactual material held in the National Museum of Ireland Archives National Museum of Ireland
- A literature review of published and key references appropriate to the wind farm including material from local interest groups and historical and archaeological societies
- Collation of information from similar or other infrastructure projects in proximity to the proposed wind farms, for example EIARs, SEAs, conservation plans, archaeological test assessments and excavations (including the Database of Irish Excavations) Cartographic sources
- A review of place names and Gaeltacht areas
- Other documentary sources
- A review and interpretation of aerial photographs to be used in combination with historic mapping to map potential cultural heritage assets.
- A review of existing guidelines and best practice approach will be undertaken.

Field survey

The assessment will include a field assessment of each of the turbine locations and associated infrastructure, the survey will confirm the location of recorded cultural heritage sites and will record their baseline condition; as well as the archaeological potential of all areas within the wind farm site and areas likely to be affected by the proposed development works. Fieldwork will also identify any unrecorded features of architectural or cultural heritage merit and will assess if they will be impacted by the development. All significant features will be recorded and photographed.

Field walkover surveys will also be undertaken where the access roads and cable routes pass close to recorded monuments and protected structures and where the routes diverge from the paved road and at the jointing bay sites.

Fieldwork along the cable routes will also seek to identify previously unrecorded roadside cultural heritage features (such as milestones, water pumps and stone bridges etc.) and structures.

Setting

Every landscape presents different topographical and environmental conditions, land cover and land usage and as such the location, scale and physical form of each element of wind farm projects and associated works are site specific. As a consequence, the range of potential impacts depends on the individual circumstances of each proposed turbine and the combined contribution of the overall setting of the wind farm.

Based on the Zone of Theoretical Visibility designated architectural, archaeological and cultural heritage features will be considered up to 5km of the development boundary. All undesignated cultural heritage features will be considered up to 500m of the development boundary. Selected highly sensitive heritage assets of national and international importance will be considered within 30km of the proposed development.

The reporting process ensures that all designations relating to heritage assets as well as cultural heritage features that are revealed through research, field assessment and consultation are clearly articulated. All relevant designated heritage assets will be mapped and lists all relevant cultural heritage constraints will be prepared.

Interactions and consultation

The scale, form and layout of the proposed wind farm development, requires a collaborative and iterative design development process with designers, archaeologists and landscape and visual specialists interactively engaged in the process from the outset. Consultation with statutory and non-statutory bodies will also take place throughout the process

5.15.3 Receiving Environment

The wider landscape in which the wind farm is located has a rich and well-documented archaeological and historical record with evidence for human activity since the prehistoric period.

The North Kildare Wind Farm encircles the northernmost part of Timahoe Bog which is a large expanse cutover peatland bog. The proposed site incorporates the dryland and marginal dryland/wetland interface and former bogland; it is located in relatively low-lying but undulating land with the majority of proposed turbines located beneath the 80m contour line. The land rises to more undulating agricultural lands in an arc to the northeast and east of the cluster while to the south the land remains low-lying bogland. The Fear English River cuts through the centre and travels along its eastern boundary (of the westernmost turbines) and its tributary the Kilcooney River the River Blackwater and the Clogheraun Stream drain the eastern most lands to the east.

There is a ringfort site (KD004-011) in a field at the very edge of the bog and a stream in Mulgeeth c. 393m to the south southeast of T13. The site is completely overgrown with trees and scrub and lies in a field of pasture; it lies in close proximity to a possible habitation site (KD004-010) where two saddle-querns and a sherd of medieval pottery were found near the stream of which there is no surface trace. The landscape in which the site lies has altered with the cutover bog, modern field divisions, and forestry. Any visual link that might have existed between this ringfort with Coolree ringfort (KD004-009) to the north and Drehid ringfort (KD008-011001) to the south (described below) is no longer present due to the dense mature forestry plantation in-between.

5.15.4 Potential Impacts

Wind farms comprise large upright structures with moving elements. Their scale relative to features in close proximity such as monuments or historical structures can have a visual intrusion on the archaeological and historic landscape. While direct physical impacts can easily be assessed in quantitative terms, the assessment of setting can be subjective and as such is a matter of qualitative and professional judgement.

The assessment will include the implications of the proposed development on the direct physical impact of the wind farm and any indirect impacts on the setting of monuments, historic buildings and cultural heritage complexes.

The potential impacts are briefly described as follows:

- Direct impacts – Construction of wind turbines and access tracks has the potential to impact any underlying archaeological remains.
- The construction phase of the development will consist largely of earthmoving activities such as soil removal for access tracks, borrow pits (if required), turbine bases and hard stand areas. This may have a number of potential negative impacts on the recorded and sub-surface archaeological heritage features. The sites are generally located in greenfield agricultural farmland, forested or bogland landscapes. There is a potential for uncovering sub-surface archaeological and cultural heritage features, or features which have no above ground expression, during peat or topsoil removal associated with the construction of the wind farm. Existing farm tracks however will be used where possible.
- Indirect Impacts – Wind farms have the potential to detract from the historic character or adversely impact the setting and visual amenity of a heritage asset affecting the integrity, sense of place, tranquillity and remoteness of that feature.
- Cumulative Impacts – An assessment will be made on the cumulative impact where necessary, depending on the scale, density and proximity of the turbines within the wind farm and to other wind farms. This will include the consideration of the setting of heritage assets.

- Residual Impacts – these relate to the setting impacts from turbines and associated infrastructure during the lifetime of the wind farm development.

The main impact on cultural heritage features occurs during the construction phase once the wind farm is operational, the potential for a negative impact on archaeological, architectural and cultural heritage will be negligible.

5.16 Environmental Aspect: Aviation and Telecommunications

5.16.1 Aspects to be addressed

The rotating blades of a wind turbine can occasionally cause interference to electro-magnetically-propagated signals. Such interference could, in theory, affect all forms of electromagnetic communications including:

- Satellite communications
- RADAR
- Cellular radio communications
- Aircraft instrument landing systems
- Air traffic control
- Terrestrial microwave links
- Television broadcasts

In addition, it is possible that houses in the immediate vicinity of the turbines could require some remedial measures in relation to television reception.

The EIAR will include an assessment of any such potential impacts.

5.16.2 Assessment Methodology

An evaluation of the possible effects that the proposed development could have on aviation and existing telecommunications networks will be conducted. A study will be undertaken to analyse the impact of the turbines on telecommunications operator's point-to-point microwave radio links.

This evaluation will include the generation of GIS based telecommunications constraints mapping for the areas affected. The purpose of this mapping is to identify potential negative impacts on the telecommunications network, and facilitate the selection of optimum sites and turbine locations by avoiding telecommunication links where possible, and thereby limiting any potential negative impacts on service providers in the area.

The proposed assessment methodology will include:

- Consultation with Irish Aviation Authority, Commission for Energy Regulation, emergency services
- Consultation with telecommunications operators to gather the necessary data
- Preparation of constraint mapping
- Analyses of the impact of the turbines on telecommunications operators' point-to-point microwave radio links and apply appropriate buffer distances around links and masts where required
- Discussions with telecommunications operators identifying potential clashes. Operators to provide feedback on initial assessment and to provide information on the importance of the links identified.
- Further specialist investigations will be carried out if the telecommunications operators identify potential impacts.
- Where necessary, mitigation measures to be agreed with operators including:
 - Turbine relocation
 - Telecommunications link relocation

- Underground fibre optic cables to replace microwave link
- Submission of final detailed layout to telecoms operators.
- Agree any layout alterations following final detailed assessment by telecoms operators, or agree suitable mitigation measures if necessary.

Impacts on aviation will be addressed following detailed discussions with the Irish Aviation Authority.

In relation to the cables, mapping of telecommunications cables, which could potentially be affected by the installation of the North Kildare Wind Farm cables, will be obtained and potential impacts assessed.

5.16.3 Receiving Environment

In the context of wind farm development, electromagnetic interference is the impact of a wind farm on existing telecommunication services resulting in an unacceptable negative impact. The rotating blades of a wind turbine can occasionally cause interference to electro-magnetically-propagated signals. Such interference could, in theory, affect all forms of electromagnetic communications including:

- Satellite communications
- RADAR
- Cellular radio communications
- Aircraft instrument landing systems
- Air traffic control
- Terrestrial telecommunication links
- Television broadcasts

The proposed development site is located approximately 40km from Dublin Airport, approximately 27km from Baldonnel Aerodrome and Clonbulloge is located at approx.19km.

5.16.4 Potential Impacts

An evaluation of the possible effects that the proposed development could have on aviation and existing telecommunications networks will be conducted. A study will be undertaken to analyse the impact of the turbines on telecommunications operator's point-to-point microwave radio links.

This evaluation will include the generation of GIS based telecommunications constraints mapping for the areas affected. The purpose of this mapping is to identify potential negative impacts on the telecommunications network, and facilitate the selection of optimum sites and turbine locations by avoiding telecommunication links where possible, and thereby limiting any potential negative impacts on service providers in the area.

The Irish Wind Energy Association 2012 guidelines, "*Best Practice Guidelines for the Irish Wind Energy Industry*", indicate that wind turbines within 20 km of a radio navigation aid have the potential to cause electro-magnetic interference with these signals. It is possible that houses in the immediate vicinity of the turbines could require some remedial measures in relation to television reception.

In practice, such measures are not difficult to implement, are relatively inexpensive and if necessary will be undertaken by the developer in conjunction with RTÉ.

5.17 Environmental Aspect: Landscape and Visual Impact

5.15.1 Aspects to be addressed

The landscape and visual assessment report will appraise the existing landscape character of the site and its wider setting in order to assess the likely landscape, visual and residential amenity impacts arising from the proposed development. A Study Area of 30km is defined as set out in best practice guidance recently updated by Scottish Natural Heritage 2017. Potential mitigation measures are also included.

Aspects to be addressed in the report are:

- ✓ Receiving environment, covering details on:
 - wider landscape context
 - localised site context.
 - Landform, landcover, land use patterns and trends
 - key/unique landscape elements and features
 - defining attributes of the wider landscape

- ✓ Landscape character, covering details on:
 - Character as outlined in CDP
 - Associated landscape values
 - Sensitivity levels within the landscape
 - Statutory designations
 - Landscape designations
 - Scenic/amenity routes
 - Views and prospects
 - Features of natural and built heritage

- ✓ Landscape Policy Context
 - Relevant policy objectives within Kildare CDP and LAPs
 - Relevant policy objectives within neighbouring counties within the 30km Study Area (Objectives appendicised).

- ✓ Visual context
 - Zone of Theoretical Visibility
 - Viewshed Reference Points (Detailed findings appendicised).
 - Route Screening Assessment (Detailed findings appendicised).

Assessment of these aspects will ultimately inform potential landscape, visual and amenity aspects, residual impacts, and in turn appropriate mitigation measures to ensure impacts are not significant.

5.15.2 Assessment Methodology

The LVIA Methodology can be summarised as undertaking the following key tasks:

- Desktop study of the site in relation to its overall wider context;
- Visit to the site and its environs.
- Visit to assess residential amenity impacts
- Visit to assess route screening
- Defining the baseline general landscape character, setting, and condition in relation to the position of the proposed development.
- Engagement with relevant landscape and amenity planning designations with the study area as outlined in the Kildare County Development Plan 2014 and any relevant policy within neighbouring counties within the study area.
- Identification of quality and types of views in the areas.
- Establishing the extent of the visual envelope, i.e. the potential area of visibility of the site in the surrounding landscape.
- Identification and evaluation of key components of the proposed development;
- Assessment of potential landscape and visual impacts, and residual impacts.
- Assessment of potential cumulative impacts with proposed/existing developments in the area.
- Preparation of Zone of Theoretical Visibility Maps (ZTVs) to a radial distance of c.30km from the site.
- Consideration of mitigation and enhancement measures.

The LVIA methodology is guided by the following guidance:

- Department of Environment, Heritage and Local Government 2006, *Wind Energy Development Guidelines for Planning Authorities*.
- Environmental Protection Agency, 2002, *Guidelines on the information to be contained in Environmental Impact Statements*.
- Environmental Protection Agency, 2003, *Advice Notes on current practice in the preparation of Environmental Impact Statements*.
- Environmental Protection Agency, 2015, *Draft Revised Guidelines on the information to be contained in Environmental Impact Statements*.
- Environmental Protection Agency, 2017, *Draft Revised Guidelines on the information to be contained in Environmental Impact Statements*.
- Environmental Protection Agency, 2015, *Draft Advice Notes on current practice in the preparation of Environmental Impact Statements*.
- Landscape Institute, and Institute of Environmental Management & Assessment, 2013, *Guidelines for Landscape and Visual Impact Assessment, 3rd Ed.*
- Scottish Natural Heritage, 2017, *Visual Representation of Wind Farms*, Version 2.2.

The impact significance criteria used in the assessment are based on the EPA Guidelines, 2002 and Advice Notes, 2003 with reference also to EPA's draft 2017 revised guidelines and the 2015 draft Advice Notes.

5.17.1 Receiving Environment

All non-wind farm related dwellings will be a minimum of 500 m from any proposed turbine. The general existing environment is rural and is concentrated in fringe areas around cutaway bogs and within pastoral farmland. The proposed wind farm development lies within the northern boglands landscape character area, as defined by the Kildare County Development Plan 2017-2023.

Within a 25km buffer of the site, there are two of existing wind farms:

- Mount Lucas Wind Farm north of the proposed development site. Existing 28 no. turbines, (Ref: PL19.237263). The proposed development lies approximately 23km to the south west of the existing Mount Lucas.
- Yellow River Wind Farm, west of the proposed development site. Permitted, 29 no. 166m high turbines, (Ref: PL19.PA0032). Distance between closest turbine of Yellow River and that of the proposed development is c. 22km to the west.

The site lies c. 2.8km south of the motorway M4 at Enfield and 1.2km southeast of the regional road R402 linking the M4 to the R420 east of Tullamore in County Offaly. It also lies 3.4km northeast of R403 linking the N4 at Lucan in County Dublin to Carbury in County Kildare and 9km north of the Grand Canal.

5.15.3 Potential Impacts

In the European Landscape Convention, landscape is defined as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'. The term "landscape" is thus defined as a zone or area as perceived by local people or visitors, whose visual features and character are the result of the action of natural and/or cultural factors. Recognition is given to the fact that landscapes evolve through time and are the result natural and human activities.

Landscape and visual impact assessment has two separate but closely related aspects. The first is visual impact, i.e. the extent to which the wind turbines in the landscape can be seen. The second is landscape character impact, i.e. effects of the wind turbines on the fabric or structure of the landscape as perceived by people. Landscape character is derived from the appearance of the land, and takes account of natural and man-made features such as topography, landform, vegetation, land use and built environment and their interaction to create specific patterns that are distinctive to particular localities.

The proposed wind turbines will be large structures with the potential to have significant landscape and visual impacts. The development of wind farms, including associated infrastructure such as tracks and ancillary buildings, may have a major impact on the surrounding landscape.

Key to the development of the project will be the need for clear communication of the scale and extent of the proposed project. Clear and concise mapping of the existing areas of landscape and visual sensitivity together with photomontages of the proposed wind turbines will be essential in demonstrating the nature and extent of the development.

Zone of Theoretical Visibility Mapping (ZTV's) will be prepared based on the Department of the Environment, Heritage and Local Government's '*Wind Farm Planning Guidelines*'. The ZTV's will illustrate the study area extending to 30km around the site and highlight the areas where the proposed turbines will theoretically be visible from, as well as the cumulative visual impact arising from the existing Mount Lucas Wind Farm and Yellow River Wind Farm. These ZTV's do not take into consideration vegetation cover, changing weather conditions or the mitigating effect of distance and therefore illustrate the worst-case scenario of visibility.

Estimation of the visual impact of the proposed scheme on the landscape will be based on the visual presence of the turbines, their aesthetic impact the landscape context and the significance of the impact. The assessment will examine potential landscape and visual impact of the 14 no. 169m high turbines on designated landscape, properties, roads, recreation and tourism areas, including;

- Direct effects on landscape features, views, routes and areas described in the County Development Plans and Landscape Character Assessments. The review of the landscape setting will account for a 30km study area from the site boundary, thereby including parts of Counties Laois, Offaly, Westmeath and Meath, as well as the main focus of the more northern section of Kildare. Assessments of and objectives for landscape character are looked at in each of the development plans for these counties to ensure a consistent and integrated appraisal of the area within this 30km area.
- Potential changes to landscape and townscape character referring to County landscape character assessments noting subtle effects that contribute to the experience of more intangible landscape characteristics. Landscape types, significance/value, sensitivity and capacity for change will be examined.
- Effects on designated landscapes, views, conservation sites and other special areas of interest.
- Effects during construction and decommissioning.

Viewshed reference points (VRP) from the surrounding landscape will be identified from the desktop studies outlined above and will be verified on site. Photomontages from these viewshed reference points will be prepared for the proposed wind turbines, together with a wireframe and photomontage views of the other planned/permitted wind turbines in the landscape, to assist in demonstrating the levels of visual impact.

6 CUMULATIVE IMPACTS, INDIRECT IMPACTS AND INTERACTION OF EFFECTS

6.1 Aspects to be Addressed

The cumulative impact of the proposed North Kildare Wind Farm with other projects which are either existing, permitted or pending planning permission, or for which there is information in the public domain, at a sufficient level of detail to allow assessment, will be addressed. Indirect effects and effects in different environmental media will be addressed.

The cumulative effects from the construction of the wind turbines, cabling and haul route alterations will also be assessed.

6.2 Cumulative Assessment Methodology

The assessment methodology will be based on the EPA guidance and the EU guidelines, 'Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions', published by the Office for Official Publications of the European Communities in May 1999.

As part of scoping the studies required to assess the impacts of the proposed North Kildare Wind Farm in the different environmental media, the potential for significant cumulative and indirect impacts and interactions will be examined and any such potential impacts will be identified. Where the potential for significant cumulative and indirect impacts and interactions is identified, such impacts and interaction of impacts will be included in the scope and addressed in the baseline and impact assessment studies for each of the relevant environmental media and aspects of the project. The cumulative and indirect impacts and interaction of impacts will be presented in the chapters of the EIAR which address the most relevant environmental media.

The matrix and expert opinion approaches, as outlined in the EU Guidelines, will be used in the identification of the potential for significant cumulative and indirect impacts and interactions. A matrix of potential interactions will be prepared. Modelling and carrying capacity analyses will be used to evaluate impacts.

6.3 Receiving Environment

The existing Mount Lucas Wind Farm (28 no. wind turbines) in Co. Kildare is located at 22km southwest of the proposed development and Yellow River Wind Farm (29 no. wind turbines) in Co. Kildare is located at 22km southwest.

Other developments that have the potential to give rise to cumulative impacts will also be examined.

6.4 Potential Impacts

The proposed North Kildare Wind Farm has the potential to reduce Ireland's reliance on fossil fuel power generation and assist in it meeting its EU 2020 and 2030 targets for renewable energy generation.

If other projects of a similar scale and type are under construction at the same time as proposed North Kildare Wind Farm, there would be a cumulative increased demand for construction materials and skills, and there would be potential for increased construction traffic.

Appendix A

List of Consultees



Telecommunications/ Aviation

Irish Aviation Authority
Telecommunications Section, An Garda
Siochána
IT Department, Kildare County Council
Irish Broadband/Imagine
Munster Broadband
Digiweb Dublin Offices and Data Centre
Ripplecom
Magnet Networks
BT Communications Ireland Ltd
Dublin Airport Authority
Commission for Communications Regulation
RTE
TV3
Eir
Broadcasting Authority of Ireland
Meteor Mobile Communications Ltd.
O2 Ireland
Vodafone
Three
ESB Telecoms
TETRA Ireland Ltd.
Premier Broadband
UPC Ireland
Wireless Connect Ltd.
Irish Telecom
TowerCom Ltd.
Arra Communications
Echo IT Limited
Wireless Connect Ltd.

Kildare County Council

Planning Department
Heritage Officer
Environment Department
Roads Department
Archaeologist
Energy Agency Office

Other Interested Bodies

An Taisce
Birdwatch Ireland
Fáilte Ireland
Teagasc
EPA
Eastern and Midland Regional Assembly
Irish Farmers Association
Irish Peatland Conservation Council
The Heritage Council
Sustainable Energy Authority of Ireland
Inland Fisheries Ireland
Irish Red Grouse Association
National Trails Office
South Eastern River Basin District
Irish Wildlife Trust
Irish Sports Council
Commission for Energy Regulation
Geological Survey of Ireland
Health Service Executive
Office of Public Works
Transport Infrastructure Ireland
Bat Conservation Ireland
Irish Raptor Group
Gas Networks Ireland
Iarnród Éireann
Irish Water
The Arts Council
Transport Infrastructure Ireland
Údarás na Gaeltachta
Waterways Ireland
Irish Parachute Club

Government Departments

Department of Communications, Climate Action and
Environment
Department of Housing, Planning, Community and Local
Government
Department of Agriculture, Food and the Marine
Department of Culture, Heritage and the Gaeltacht –
Development Applications Unit (National Monuments
Service)
Department of Culture, Heritage and the Gaeltacht –
Development Applications Unit (Nature Conservation)
Department of Defence
Department of Transport, Tourism and Sport

Appendix B

Draft Table of Contents of the EIAR



APPENDIX B DRAFT TABLE OF CONTENTS OF THE EIAR

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- 1.2 Outline of Proposed Development
- 1.3 Need for the Proposed Development
- 1.4 Application and EIAR Process
- 1.5 EIAR Methodology and Structure
- 1.6 Contributors to the EIAR
- 1.7 Difficulties Encountered
- 1.8 Viewing and Purchasing of the EIAR
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- 2.4 Operation and Lifespan
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Chapter 7 Biodiversity

Chapter 8 Land, Soils and Geology

Chapter 9 Hydrology & Water Quality

Chapter 10 Population & Human Health

Chapter 11 Shadow Flicker

Chapter 12 Traffic and Transportation

Chapter 13 Archaeological, Architectural and Cultural Heritage

Chapter 14 Landscape and Visual

Chapter 15 Telecommunications and Aviation

Chapter 16 Interactions of the Foregoing

Volume 2A Figures for these Chapters

Volume 3 Appendices

Volume 4 Photomontages

EIAR Scoping Consultee
By email only

13 May 2024

Our Ref: 22-242-FT-EGN-XX-LT-EN-0003

Re: EIAR Scoping Consultation for the Proposed Drehid Wind Farm, County Kildare.

Dear Sir/Madam,

North Kildare Wind Farm Limited, hereafter referred to as 'the Applicant', intends to apply for planning permission to An Board Pleanála in accordance with section 37B of the Planning and Development Act 2000 (as amended) for a renewable energy development (the Proposed Wind Farm) comprising an eleven turbine wind farm, the turbines being a maximum tip height of 167 metres. The Applicant also intends to apply for planning permission in accordance with Section 182 of the same Act, for the development of a 110 kV substation (the Proposed Substation) to enable the connection of the wind farm to the national grid. We refer to the 'Proposed Wind Farm' and the 'Proposed Substation' together as the 'Proposed Development'.

We have engaged with you in the past as part of pre-application consultations regarding a previous iteration of the Proposed Development. That iteration of the Proposed Development had been initially consented by An Bord Pleanála in 2020 following an appeal against Kildare County Council's decision (ABP Ref. 306500-20). However, we have made some changes to the layout and method of connection to the national grid and as such, we are now seeking planning consent for a slightly revised Proposed Development. Therefore, we are consulting with you to advise of the changes to the previously considered development proposal.

Previously Considered Development

The text on the site notice and newspaper notice for the previously consented development read as follows:

"The development will consist of the following: up to 12 no. wind turbines with a tip height of up to 169 meters and all associated foundations and hardstanding areas; 1 no. on-site electricity substation; 2 no. temporary construction compounds; all associated underground electrical and communication cabling connecting the turbines to the proposed on-site electricity substation; underground electricity cabling including joint bays on the public road connecting the proposed on-site electricity substation to the existing Dunfiirth substation within the townland of Dunfiirth via the L1004 public road; upgrade and extension to an existing recreation amenity trail and installation of signage, picnic tables and bicycle stands; upgrade of existing site entrance from the L5025 public road and use of 1 no. existing site entrance on the L5012 public road; provision of new site access tracks and associated drainage; upgrade of existing access tracks and associated drainage; tree felling; and all associated site development works including landscaping. Permission is sought for a period of 10 years and an operational life of 30 years from the date of commissioning of the entire wind farm. An Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) accompany this planning application."

The Applicant now wishes to apply for planning permission for an optimised design, the Proposed Development, which consists of the Proposed Wind Farm and the Proposed Substation.

The Proposed Wind Farm

The Proposed Wind Farm will consist of 11 no. wind turbines. 10 no. turbines will have a tip height of 167 m, while one turbine (T1, closest to the site entrance) will have a tip height of 148 m. The turbine layout is broadly similar to the layout associated with the previously consented development (ABP Ref. 306500-20). However, one turbine has been omitted from the revised layout and another turbine has been relocated.

The coordinates of the turbines for the Proposed Development are detailed in Table 1-1:

Table 1-1: Proposed Drehid Wind Farm Turbine Co-ordinates

Turbine ID	ITM_X_Coor	ITM_Y_Coor
1	673844	734350
2	674448	734178
3	674684	734692
4	674376	735901
5	673973	735903
6	674215	736397
7	674699	736284
8	675043	736821
9	676015	737268
10	676382	737020
11	676294	737672

The Applicant is now seeking consent for a 10-year planning permission and 35-year operational life from the date of commissioning of the Proposed Wind Farm.

The Proposed Substation

The previously considered development intended to connect to the national grid via a proposed on-site electricity substation, underground electricity cabling including joint bays in the L1004 public road, and connecting into the existing Dunfiirth 110 kV substation within the townland of Dunfiirth. However, the existing Dunfiirth 110 kV substation is not suitable for a new generator connection in its current format and would require a significant rebuild and additional network interruption to facilitate connection at this existing node. The project also received a grid connection offer through the Enduring Connection Policy for a new loop-in substation on the Harristown - Dunfiirth(Tee) - Rinawade line, which was agreed as the preferred connection method. The proposed development therefore intends to connect to the national grid via a new on-site 110 kV loop-in/loop-out substation within the project lands at the northern end of the site. This revised connection would ensure that no cabling is required outside the project lands and would eliminate the need to lay cables within the public road.

Therefore, the Applicant is now seeking consent to construct an on-site 110 kV substation, which will connect to the national grid by way of a loop-in/loop-out connection to the existing Kinnegad-Rinawade 110 kV overhead line. 2 no. line-cable interface masts will enable this loop-in connection to the existing overhead line.

The Proposed Substation will be centred on ITM coordinates 676424, 737879. The substation will comprise of two separate compounds and buildings, an Eirgrid compound and an Independent Power Producer (IPP) compound, necessary to export the electricity generated from the wind farm to the national grid. The compounds are made up of a hardstanding permeable crushed stone surface and surrounded by a palisade fence.

The substation compound will be surrounded by a palisade fence with associated gates for access. Eirgrid specification lightning monopoles will also be included as a safety measure.

The Applications

An Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) is being drafted for the Proposed Development. Fehily Timoney and Company (FT) will prepare the EIAR and NIS in support of the application. These reports will assess the Proposed Wind Farm and the Proposed Substation separately in order to allow for The Board to assess the potential impacts associated with each planning application separately (i.e. the application for the Proposed Wind Farm under S37 and the application for the Proposed Substation under S182).

The assessments will be carried out in accordance with:

- i. The Department of Environment, Heritage and Local Government (2009) 'Guidance on Appropriate Assessment for Planning Authorities'.
- ii. The Environmental Protection Agency (2022) 'Guidelines on the information to be contained in Environmental Impact Assessment Reports'

- iii. European Commission (2017) 'Environmental Impact Assessment of Projects: Guidance on the Preparation of the Environmental Impact Assessment Report'
- iv. Office of the Planning Regulator (2021) 'OPR Practice Note PN02: Environmental Impact Assessment Screening'

This Scoping Letter is being issued to you as we would be interested in receiving any opinions, further information or comments you may have on the Proposed Development which is relevant to your area of expertise.

Scoping for EIA

The purpose of the EIA scoping process is to identify the key points and issues which are likely to be important during the assessment of likely significant effects / adverse effects and to eliminate those that are not. The scoping process does this by identifying sources or causes of potential environmental effects, the pathways by which the effects might occur, and the sensitive receptors, which are likely to be affected. It defines the appropriate level of detail for the information to be provided in the EIAR. In essence, the primary focus of scoping is to define the most appropriate assessment of significant effects related to the project.

The responses from this consultation will inform the scope of the environmental assessments in addition to informing the need for any further remedial measures.

Content of the EIAR – Statutory Requirements

The EPA has published guidelines on the preparation of Environmental Impact Assessment Reports. These are contained in 'Advice Notes on Current Practice (in the preparation of Environmental Impact Statements)'¹, published in 2003 and 'Guidelines on the Information to be contained in Environmental Impact Statements'² published originally in 2002, but revised in Draft format in 2015 and 2017. The EIAR team will have regard to these guidelines in the preparation of the EIAR. In addition, the EIAR will be completed in accordance with the guidance produced by the European Commission in 2017 – Guidance on the Preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU). The team will also have regard to best practice guidance for individual environmental topics.

Regard will also be paid to the 'Best Practice Guidelines for the Irish Wind Energy Industry' published by the Irish Wind Energy Association and the 'Wind Energy Development Guidelines' published by the Department of Environment, Heritage and Local Government (2006) or the latest adopted revision at the time of application.

¹ EPA (2003), Advice Notes on Current Practice (in the preparation of Environmental Impact Statements) Available at:

https://www.epa.ie/pubs/advice/ea/guidelines/EPA_advice_on_EIS_2003.pdf

² EPA (2002) *Guidelines on the Information to be contained in Environmental Impact Statements*, available at:

<https://www.epa.ie/pubs/consultation/reviewofdraftteisguidelinesadvicenotes/Draft%20Guidelines%20on%20the%20Information%20to%20be%20contained%20in%20an%20EIS.pdf>

There are two different EIA structures which are commonly used and which the EPA guidelines accept as equally valid. The structure, which the EIA team proposes to use for the EIA for the Proposed Development, is the grouped format structure.

Using this structure there is a separate chapter for each topic, e.g. air quality, Biodiversity, hydrology. The description of the existing environment, the proposed development and the potential impacts, mitigation measures and residual impacts are grouped in the chapter. The grouped format makes it easy to investigate topics of interest and facilitates cross-reference to specialist studies.

Given the need to ensure that the EIA is readily accessible to the general public, as well as to the statutory authorities, the EIA team has proposed to structure the EIA as described below:

- Non-technical Summary
- Introduction
- Description of the Development
- Policy and Legislation
- EIA Scoping and Consultation
- Air Quality and Climate
- Landscape and Visual
- Shadow Flicker
- Noise and Vibration
- Traffic and Transportation
- Biodiversity
- Land, Soils, Geology and Slope Stability
- Hydrology & Water Quality
- Population, Human Health & Material Assets
- Archaeology, Architecture and Cultural Heritage
- Telecommunications and Aviation
- Interactions of the Foregoing

This Scoping Letter is being issued to you as we would be interested in receiving any opinions, further information or comments you may have on the Proposed Development application which is relevant to your area of expertise.

We respectfully ask that you forward all responses before the **10th of June 2024** to provide adequate time to consider all material. Your response may be forwarded by email or by post to the address below:

By Email: brian.cronin@ftco.ie

By Post: Brian Cronin, Fehily Timoney & Company, Core House, Pouladuff Road, County Cork,
T12 D773



If you have no comments to make, I would be grateful if you would please acknowledge receipt of this correspondence.

If you have any further queries, please contact the undersigned.

Appended, please find figures 1.1 and 1.2 for your consideration, which illustrate the originally considered layout and the draft updated layout.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Brian Cronin", positioned above a solid black horizontal line.

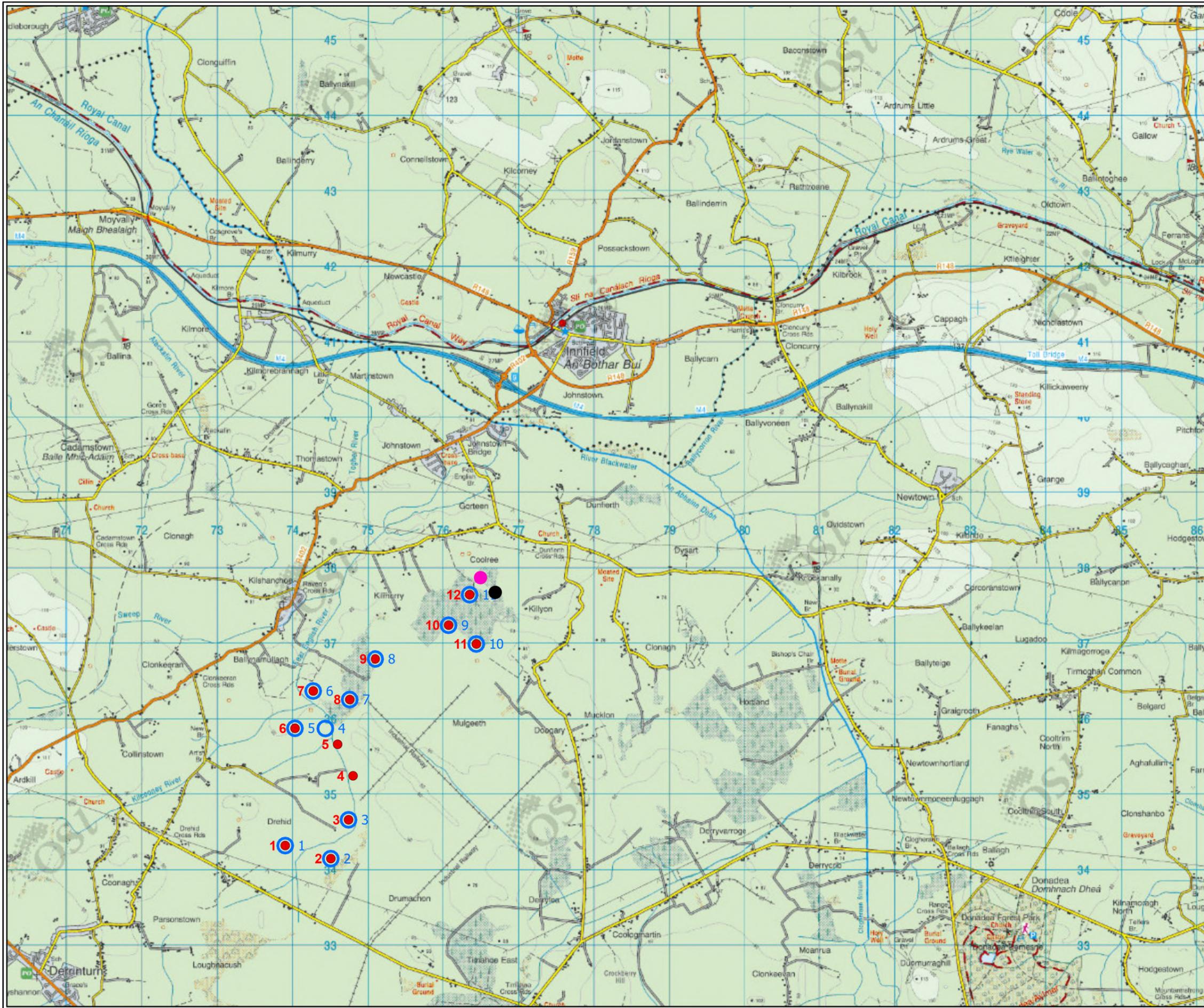
Brian Cronin
for and on behalf of **Fehily Timoney and Company**



**FEHILY
TIMONEY**

CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

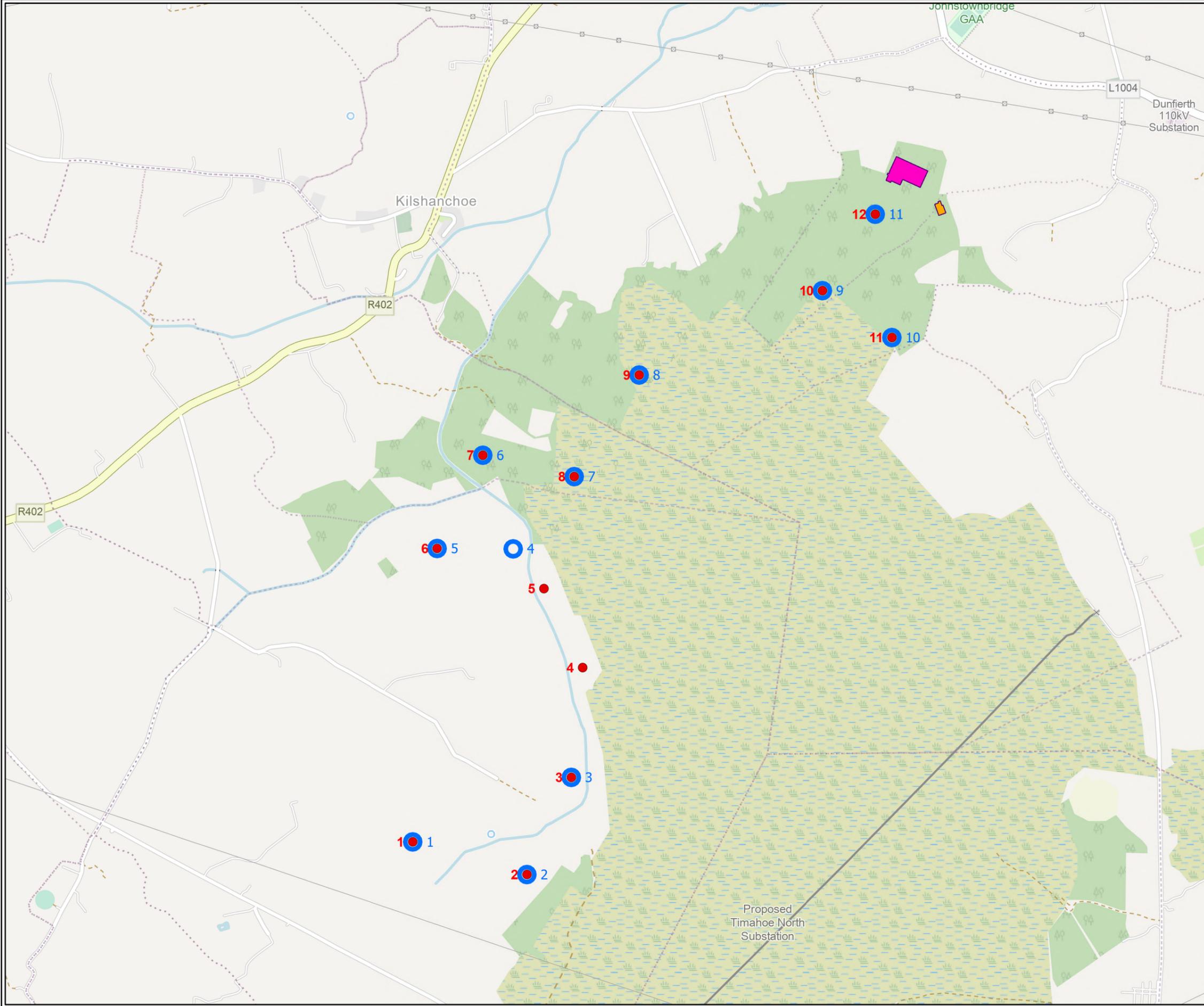
Appendix 1 - Site Layout - 2018 vs. 2024



- Legend**
- 2018 Turbine Locations
 - 2024 Turbine Locations
 - 2018 Substation Location
 - 2024 Substation Location

TITLE:	Drehid Wind Farm	
PROJECT:	Drehid Wind Farm SID	
FIGURE NO:	1.2	
CLIENT:	Statkraft	
SCALE:	1:50,000	REVISION: 0
DATE:	5/10/2024	PAGE SIZE: A3





- Legend**
- 2018 Turbine Locations
 - 2024 Turbine Locations
 - 2018 Substation Location
 - 2024 Substation Location

TITLE:	Drehid Wind Farm - 2018 & 2024 Turbine Layouts		
PROJECT:	Drehid Wind Farm SID		
FIGURE NO.:	1.1		
CLIENT:	Statkraft		
SCALE:	1:20,000	REVISION:	0
DATE:	5/10/2024	PAGE SIZE:	A3



Appendix 2 List of Consultees

An Taisce

Arra Communications

Birdwatch Ireland

Broadcasting Authority of Ireland

BT Communications Ireland Ltd

Commission for Communications Regulation

Commission for Regulation of Utilities

Development Applications Unit

Digiweb Dublin Offices and Data Centre

Dublin Airport Authority

Eastern and Midland Regional Assembly

Echo IT Limited

Eir

EirGrid

EPA

ESB Networks

ESB Telecoms

Fáilte Ireland

Gas Networks Ireland

Geological Survey of Ireland

Health Service Executive

Iarnród Éireann

Inland Fisheries Ireland

Irish Aviation Authority

Irish Broadband/Imagine

Irish Farmers Association

Irish Parachute Club

Irish Peatland Conservation Council

Irish Raptor Group

Irish Red Grouse Association

Irish Sports Council

Viatel (formerly Irish Telecom)

Uisce Eireann (formerly Irish Water)

Irish Wildlife Trust

Kildare County Council

Magnet Networks

Minister for Agriculture, Food and the Marine

Minister for Defence

Minister for Housing, Local Government and Heritage

Minister for Rural and Community Development

Minister for the Environment, Climate and Communications

Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media

Munster Broadband

Office of Public Works

Premier Broadband

RTE

Sustainable Energy Authority of Ireland

Teagasc

Telecommunications Section, An Garda Síochána

TETRA Ireland Ltd.

An Comhairle Ealaíon (The Arts Council)

The Heritage Council

Three

TowerCom Ltd.



Transport Infrastructure Ireland

TV3 (Now Virgin Media)

Údarás na Gaeltachta

Vodafone

Waterways Ireland

Wireless Connect Ltd.

APPENDIX 16.2

Communications with the Potentially Affected Telecom Operators

From: [Elaine Bennett](#)
To: [Silvia Garcia](#)
Subject: FW: North Kildare WF - grid co-ordinates
Date: 14 August 2018 10:04:06
Attachments: [image001.jpg](#)
[image002.jpg](#)
[image003.jpg](#)
[image004.jpg](#)

Hi Silvia,
See below from Three – are these the same as Towercom email?

Thanks,
Elaine

Elaine Bennett
Senior Scientist
Bsc PhD

Fehily Timoney and Company | Core House | Pouladuff Road | Cork | Ireland
Tel: +353 21 4969567 | Mobile: +353 87 6822 239 | Mail: elaine.bennett@ftco.ie | Web: www.fehilytimoney.ie

From: Gerry Callan <Gerry.Callan@three.ie>
Sent: 14 August 2018 10:02
To: Elaine Bennett <elaine.bennett@ftco.ie>
Subject: RE: North Kildare WF - grid co-ordinates

Hi Elaine,

There is one link potentially affected by 5 of the turbines. The planning department are looking into what the longer term intention is for this link. I'll see if I can get an answer on this today.

Hope this helps,

Best wishes,

Gerry Callan
Transmission Engineer
086 3884246
gerry.callan@three.ie



Make it count.

From: Elaine Bennett [mailto:elaine.bennett@ftco.ie]
Sent: 14 August 2018 09:48
To: Gerry Callan
Subject: RE: North Kildare WF - grid co-ordinates

Hi Gerry,
Just wondering if there are any conflicts with your network?

Thanks,
Elaine

Elaine Bennett
Senior Scientist
Bsc PhD

Fehily Timoney and Company | Core House | Pouladuff Road | Cork | Ireland
Tel: +353 21 4969567 | Mobile: +353 87 6822 239 | Mail: elaine.bennett@ftco.ie | Web: www.fehilytimoney.ie

From: Gerry Callan <Gerry.Callan@three.ie>
Sent: 18 July 2018 10:45
To: Elaine Bennett <elaine.bennett@ftco.ie>
Subject: RE: North Kildare WF - grid co-ordinates

That's great – thanks Elaine – I'll get working on this today.

Best wishes,

Gerry Callan
Transmission Engineer

086 3884246
gerry.callan@three.ie



Make it count.

From: Elaine Bennett [mailto:elaine.bennett@ftco.ie]
Sent: 18 July 2018 10:42
To: Gerry Callan
Subject: RE: North Kildare WF - grid co-ordinates

Hi Gerry,
ING co-ordinates are below:

FT_ID	X_ING	Y_ING
1	272730	233469
2	274390	234215
3	273815	234239
4	274648	234765
5	273743	234805
6	274504	235530
7	274060	235869
8	273466	235926
9	274632	236277
10	274165	236491
11	275091	236984
12	276388	237153
13	275947	237404
14	276494	237625

Thanks,
Elaine

Elaine Bennett
Senior Scientist
Bsc PhD

From: Gerry Callan [<mailto:Gerry.Callan@three.ie>]
Sent: 17 July 2018 15:37
To: Elaine Bennett <elaine.bennett@ftco.ie>
Subject: FW: North Kildare WF - grid co-ordinates

Hi Elaine,

Kent just forwarded me the XYs for the North Kildare windfarm, below.

Would you have these to hand in Irish Grid rather than ITM?

Thanks and best wishes,

Gerry Callan
Transmission Engineer

086 3884246
gerry.callan@three.ie



Make it count.

Hi Kent,

The grid co-ordinates for the turbines are as follows:

FT_ID	X_ITM	Y_ITM
1	672665.1	733495.8
2	674324.6	734241.6
3	673750	734265.5
4	674582.9	734791.5
5	673678.2	734831.5
6	674439.1	735556.3
7	673994.5	735894.9
8	673400.8	735952
9	674567.2	736303.3
10	674099.6	736517.4
11	675025.4	737010.3
12	676322.1	737178.8
13	675881.1	737430.1
14	676428.9	737651.2

Thanks,
Elaine

Elaine Bennett
Senior Scientist
Bsc PhD

Fehily Timoney and Company | Core House | Pouladuff Road | Cork | Ireland
Tel: +353 21 4969567 | Mobile: +353 87 6822 239 | Mail: elaine.bennett@ftco.ie | Web: www.fehilytimoney.ie

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From: [Silvia Garcia](#)
To: ["mick.tracey@esb.ie"](mailto:mick.tracey@esb.ie)
Cc: ["Peter Byrne"](#); [Elaine Bennett \(elaine.bennett@ftco.ie\)](mailto:elaine.bennett@ftco.ie)
Bcc: ["a6e65cff-223f-4041-bedd-457947517f14.metaPublish@Uss.ftco.ie"](mailto:a6e65cff-223f-4041-bedd-457947517f14.metaPublish@Uss.ftco.ie)
Subject: FW: North Kildare Wind Farm Environmental Impact Assessment Report - Scoping & Consultation Report
Date: 12 September 2018 15:13:49
Attachments: [image001.png](#)
[image002.jpg](#)
[d0a1d8af-e853-4da1-abfe-149382e41382.png](#)
[a6e65cff-223f-4041-bedd-457947517f14.png](#)

Hi Mick,

While your colleague Peter is away, could you please come back to me on the below coordinates for a wind farm in north of Kildare please?

We would like to know if ESB will have any issues as soon as possible.

Many thanks.

Regards,

Silvia Garcia
Senior Project Scientist
Fehily Timoney & Company | Core House | Pouladuff Road | Cork | T12 D773 | Ireland

Tel: [+353 21 496 4133](tel:+353214964133) Direct Dial: [+353 21 496 9565](tel:+353214969565)
Fax: [+353 21 496 4464](tel:+353214964464)
Mail to: silvia.garcia@ftco.ie | Web: www.fehilytimoney.ie

From: Silvia Garcia
Sent: 12 September 2018 15:10
To: 'Peter Byrne' <Peter.Byrne@esb.ie>
Subject: RE: North Kildare Wind Farm Environmental Impact Assessment Report - Scoping & Consultation Report

Hi Peter,

Please find below the coordinates of the final layout of this wind farm for your assessment. Please let us know if there are any issues.

Turbine No.	ITM X	ITM Y
1	673844	734350
2	674448	734178
3	674684	734692
4	674743	735273
5	674539	735691
6	673973	735903
7	674215	736397
8	674699	736284
9	675043	736821
10	676015	737268
11	676382	737020
12	676294	737672

Thanks.

Regards,

Silvia Garcia

Senior Project Scientist

Fehily Timoney & Company | Core House | Pouladuff Road | Cork | T12 D773 | Ireland

Tel: +353 21 496 4133 Direct Dial: +353 21 496 9565

Fax: +353 21 496 4464

Mail to: silvia.garcia@ftco.ie | Web: www.fehilytimoney.ie

From: Peter Byrne <Peter.Byrne@esb.ie>

Sent: 22 August 2018 10:18

To: Silvia Garcia <silvia.garcia@ftco.ie>

Subject: RE: North Kildare Wind Farm Environmental Impact Assessment Report - Scoping & Consultation Report

Silvia:

The turbine No:1 is sitting right in the middle of the link. The buffer distance needs to be a minimum of 300 metres .

Regards,

cid:image001.png@01D44AAA.A7C6DAF0



Peter Byrne | Operations | ESB Telecoms Ltd | T: +353 702 7658 / +353 87 618 1359 | www.esbi.ie

From: Silvia Garcia [<mailto:silvia.garcia@ftco.ie>]

Sent: 17 August 2018 14:19

To: Byrne. Peter (ESB Telecoms Ltd) <Peter.Byrne@esb.ie>

Subject: RE: North Kildare Wind Farm Environmental Impact Assessment Report - Scoping & Consultation Report

Thanks Peter. Can you please ask them to provide the buffer distance that they recommend to the centre of the turbine for both links?

From: Peter Byrne <Peter.Byrne@esb.ie>

Sent: 17 August 2018 13:55

To: Silvia Garcia <silvia.garcia@ftco.ie>

Subject: FW: North Kildare Wind Farm Environmental Impact Assessment Report - Scoping & Consultation Report

Silvia:

ESB Telecom services have a problem with turbine No: 1 and are checking out a possible problem with another link. As soon as I have notification of this I will forward same onto you.

Hi Peter,

Turbine 1 will impact the microwave trunk radio link to Three Rock. Please see the screenshot below.
Further analysis needed for SCADA Polling Radio. And will be submitted next week.

cid:image002.jpg@01D44AAA.A7C6DAF0



Regards,

cid:image001.png@01D44AAA.A7C6DAF0



Peter Byrne | Operations | ESB Telecoms Ltd | T: +353 702 7658 / +353 87 618 1359| www.esbi.ie

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From: [Piotr Zurek](#)
To: [Silvia Garcia](#)
Cc: [Denis Herlihy](#); [Adrian Carroll](#)
Subject: RE: Consultation windfarm in Co. Kildare
Date: 16 August 2018 16:51:57
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.jpg](#)
[image008.jpg](#)
[North Kildare Windfarm LTD.kmz](#)

Hi Silvia,

Based on a very brief analysis there seems to be no potential impact caused by proposed windfarm build on our Point-to-Point link infrastructure, however, please provide us with more information regarding turbine sizes as soon as they become available to you. Once we have more details we will be able to judge potential impact of the windfarm on our customers located in its close proximity.

Please find attached google earth file with turbines plotted for future use.

Kind Regards,

Kind Regards,

Piotr Zurek | Commercial Manager

T: 061 571157 | **M:** 086 0375938
E: piotr.zurek@ripplecom.net | **W:** ripplecom.net
Houston Hall, Raheen Business Park, Limerick, V94 PKF1



cid:image006.png@01D42366.2B294BB0



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From: Silvia Garcia <silvia.garcia@ftco.ie>

Sent: Wednesday 15 August 2018 15:28
To: Piotr Zurek <piotr.zurek@ripplecom.net>
Subject: RE: Consultation windfarm in Co. Kildare

Unfortunately we don't know that yet Piotr.

From: Piotr Zurek <piotr.zurek@ripplecom.net>
Sent: 15 August 2018 15:27
To: Silvia Garcia <silvia.garcia@ftco.ie>
Subject: RE: Consultation windfarm in Co. Kildare

Hi Silvia,

Do you know what the span of the blades will be?

Regards,
Piotr

From: Silvia Garcia <silvia.garcia@ftco.ie>
Sent: Wednesday 15 August 2018 15:25
To: Piotr Zurek <piotr.zurek@ripplecom.net>; Licensing <licensing@ripplecom.net>
Cc: Elaine Bennett <elaine.bennett@ftco.ie>; Jarek Frankiewicz <jarek.frankiewicz@ripplecom.net>; Denis Herlihy <denis.herlihy@ripplecom.net>
Subject: RE: Consultation windfarm in Co. Kildare

Hi Piotr,

Tip height could be of up to 169m. I hope that helps.

Regards,
Silvia

From: Piotr Zurek <piotr.zurek@ripplecom.net>
Sent: 15 August 2018 15:23
To: Silvia Garcia <silvia.garcia@ftco.ie>; Licensing <licensing@ripplecom.net>
Cc: Elaine Bennett <elaine.bennett@ftco.ie>; Jarek Frankiewicz <jarek.frankiewicz@ripplecom.net>; Denis Herlihy <denis.herlihy@ripplecom.net>
Subject: RE: Consultation windfarm in Co. Kildare

Hi Silvia,

Do you know the proposed height of the towers and the span of the blades?

Regards,

Kind Regards,

Piotr Zurek | Commercial Manager

T: 061 571157 | M: 086 0375938
E: piotr.zurek@ripplecom.net | W: ripplecom.net
Houston Hall, Raheen Business Park, Limerick, V94 PKF1



cid:image006.png@01D42366.2B294BB0



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From: Silvia Garcia <silvia.garcia@ftco.ie>
Sent: Wednesday 15 August 2018 14:49
To: Licensing <licensing@ripplecom.net>
Cc: Elaine Bennett <elaine.bennett@ftco.ie>
Subject: Consultation windfarm in Co. Kildare

Dear Sir/Madam,

North Kildare Wind Farm Ltd (a subsidiary of Element Power Ireland Ltd) intends to apply for planning permission to construct a wind energy development between Prosperous and Enfield, in north Co. Kildare. The proposed wind farm site and grid connection includes lands in the townlands of Coolree, Kilmurry, Drehid, Parsonstown, Ballynamullagh, Clonkeeran, Killyon and Dunfieth.

See coordinates of turbines below:

FT_ID	X_ITM	Y_ITM
1	672665.1	733495.8
2	674324.6	734241.6
3	673750	734265.5
4	674582.9	734791.5
5	673678.2	734831.5
6	674439.1	735556.3
7	673994.5	735894.9
8	673400.8	735952
9	674567.2	736303.3

10	674099.6	736517.4
11	675025.4	737010.3
12	676322.1	737178.8
13	675881.1	737430.1
14	676428.9	737651.2

As part of the consultation process, we would be interested in receiving any comments you may have on the proposed development, relevant to potential interference with telecom links under your control. Could you please get back to us with any comments in the next day or two? If you have no comments to make, please acknowledge receipt of this email.

For any queries regarding the project, please contact me or my colleague Elaine Bennett (in CC).

Regards,

Silvia Garcia

Senior Project Scientist

Fehily Timoney & Company | Core House | Pouladuff Road | Cork | T12 D773 | Ireland

Tel: +353 21 496 4133 Direct Dial: +353 21 496 9565

Fax: +353 21 496 4464

Mail to: silvia.garcia@ftco.ie | Web: www.fehilytimoney.ie

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Pouladuff Road, Cork, Ireland

Hope this helps,

Best wishes,

Gerry Callan
Transmission Engineer

086 3884246
gerry.callan@three.ie



Make it count.

From: Elaine Bennett [<mailto:elaine.bennett@ftco.ie>]

Sent: 14 August 2018 09:48

To: Gerry Callan

Subject: RE: North Kildare WF - grid co-ordinates

Hi Gerry,
Just wondering if there are any conflicts with your network?

Thanks,
Elaine

Elaine Bennett
Senior Scientist
Bsc PhD

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Tel: +353 21 4969567 | Mobile: +353 87 6822 239 | Mail: elaine.bennett@ftco.ie | Web: www.fehilytimoney.ie

From: Gerry Callan <Gerry.Callan@three.ie>

Sent: 18 July 2018 10:45

To: Elaine Bennett <elaine.bennett@ftco.ie>

Subject: RE: North Kildare WF - grid co-ordinates

That's great – thanks Elaine – I'll get working on this today.

Best wishes,

Gerry Callan
Transmission Engineer

086 3884246
gerry.callan@three.ie



Make it count.

From: Elaine Bennett [<mailto:elaine.bennett@ftco.ie>]

Sent: 18 July 2018 10:42

To: Gerry Callan

Subject: RE: North Kildare WF - grid co-ordinates

Hi Gerry,
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10	274165	236491
11	275091	236984
12	276388	237153
13	275947	237404
14	276494	237625

Thanks,
Elaine

Elaine Bennett
Senior Scientist
Bsc PhD

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From: Gerry Callan [<mailto:Gerry.Callan@three.ie>]

Sent: 17 July 2018 15:37

To: Elaine Bennett <elaine.bennett@ftco.ie>

Subject: FW: North Kildare WF - grid co-ordinates

Hi Elaine,

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Would you have these to hand in Irish Grid rather than ITM?

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Gerry Callan
Transmission Engineer

086 3884246
gerry.callan@three.ie



Make it count.

Hi Kent,
The grid co-ordinates for the turbines are as follows:

FT_ID	X_ITM	Y_ITM
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7	673994.5	735894.9
8	673400.8	735952
9	674567.2	736303.3
10	674099.6	736517.4
11	675025.4	737010.3
12	676322.1	737178.8
13	675881.1	737430.1

Thanks,
Elaine

Elaine Bennett
Senior Scientist
Bsc PhD

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Tel: +353 21 4969567 | Mobile: +353 87 6822 239 | Mail: elaine.bennett@ftco.ie | Web: www.fehilytimoney.ie

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From: [Peter Byrne](#)
To: [Silvia Garcia](#)
Subject: RE: North Kildare Wind Farm Environmental Impact Assessment Report - Scoping & Consultation Report
Date: 12 October 2018 16:19:29
Attachments: [image001.png](#)
[image002.jpg](#)

Silvia:

I add ESB Telecom services query as follows :

Hi Peter

As discussed the clearance zone was calculated using the JRC method f or diffraction. This does not take into account scattering/reflections.

Further analysis could be performed to determine a more exact clearance zone. The analysis is done externally by consultants and at a cost of approx. €2k.

In relation to the alternative of providing fibre between Dunfiirth 110kV and Carbury. Who would ultimately own this fibre cable and the responsibility for maintenance?

Thanks

Paul

Regards,



Peter Byrne | Operations | ESB Telecoms Ltd | T: +353 702 7658 / +353 87 618 1359|
www.esbi.ie

From: Silvia Garcia [mailto:silvia.garcia@ftco.ie]
Sent: 10 October 2018 12:31
To: Byrne, Peter (ESB Telecoms Ltd) <Peter.Byrne@esb.ie>
Subject: RE: North Kildare Wind Farm Environmental Impact Assessment Report - Scoping & Consultation Report

Hi Peter,

Based on the proximity from T12 to the link (app. 80m), would ESB consider suitable to provide mitigation options such as running fibre from Dunfiirth 110kV to Cardbury or installing a radio link?

Please come back to me when you on this query when you are back to the office.
Many thanks.

Regards,
Silvia

From: Peter Byrne <Peter.Byrne@esb.ie>
Sent: 09 October 2018 14:28
To: Silvia Garcia <silvia.garcia@ftco.ie>
Subject: North Kildare Wind Farm Environmental Impact Assessment Report - Scoping & Consultation Report

Silvia:

Exact co=ordinates as requested.

Regards,

cid:image001.png@01D46094.3943ADB0



Peter Byrne | Operations | ESB Telecoms Ltd | T: +353 702 7658 / +353 87 618 1359|
www.esbi.ie

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An t-impeallacht? - Smaoinigh air sula bpriontáileann tú an r-phost seo.
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* * * * *

Tá an t-eolas sa ríomhphost seo agus in aon chomhad a ghabhann leis rúnda agus ceaptha le haghaidh úsáide an té nó an aonáin ar seoladh chuige iad agus na húsáide sin amháin. Is tuairimí nó dearcthaí an údair amháin aon tuairimí nó dearcthaí ann, agus ní gá gurb ionann iad agus tuairimí nó dearcthaí ESB.

Má bhfuair tú an ríomhphost seo trí earráid, ar mhiste leat é sin a chur in iúl don seoltóir. Scanann ESB ríomhphoist agus ceangaltáin le haghaidh víreas, ach ní ráthaíonn sé go bhfuil ceachtar díobh saor ó víreas agus ní glacann dliteanas ar bith as aon damáiste de dhroim víreas.

<https://www.esb.ie/contact>

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<https://www.esb.ie/contact>

* * * * *



From: Elaine Bennett [<mailto:elaine.bennett@ftec.ie>]
Sent: 16 July 2018 17:07
To: Gavin Byrne <gavin.byrne@netshare.ie>
Subject: RE: P0878/Let/EB/MG: North Kildare Wind Farm Development

Hi Gavin,
The maximum hub height is: 100.5m
The maximum rotor diameter is: 137m

Thanks,
Elaine

Elaine Bennett
Senior Scientist
BSc PhD

Fehily Timoney and Company | Core House | Pouladuff Road | Cork | Ireland
Tel: +353 21 4969567 | Mobile: +353 87 6822 239 | Mail: elaine.bennett@ftec.ie | Web: www.fehilytimoney.ie

From: Gavin Byrne [<mailto:gavin.byrne@netshare.ie>]
Sent: 16 July 2018 17:03
To: Elaine Bennett <elaine.bennett@ftec.ie>
Subject: RE: P0878/Let/EB/MG: North Kildare Wind Farm Development

Thanks Elaine. Can you confirm Turbine dimensions as below:

Maximum Hub height
Maximum Rotor Diameter

The scoping document only indicates a 169m maximum tip height.

Regards,

Gavin Byrne BE, MSc, MEEI
Transmission Planning & Strategy Engineer
Netshare Ireland
Ivesh Building, The Park, Carrickmines, Dublin 18
mobile: +353 87 6448159
email: gavin.byrne@netshare.ie



From: Elaine Bennett [<mailto:elaine.bennett@ftec.ie>]
Sent: 16 July 2018 16:44
To: Gavin Byrne <gavin.byrne@netshare.ie>
Subject: RE: P0878/Let/EB/MG: North Kildare Wind Farm Development

Hi Gavin,
Many thanks for getting back to me, the co-ordinates are detailed below:

FT_ID	X_ITM	Y_ITM
1	672665.1	733495.8
2	674324.0	734241.8
3	677750	734265.5
4	674582.9	734791.5
5	673678.2	734831.5
6	674439.1	735556.3
7	673994.5	735594.9
8	673400.8	735952
9	674567.2	736303.3
10	674099.6	736517.4
11	675025.4	737003.3
12	675322.1	737178.8
13	675881.1	737430.1
14	676428.9	737651.2

Thanks,
Elaine

Elaine Bennett
Senior Scientist
BSc PhD

Fehily Timoney and Company | Core House | Pouladuff Road | Cork | Ireland
Tel: +353 21 4969567 | Mobile: +353 87 6822 239 | Mail: elaine.bennett@ftec.ie | Web: www.fehilytimoney.ie

From: Gavin Byrne [<mailto:gavin.byrne@netshare.ie>]
Sent: 16 July 2018 16:39
To: Elaine Bennett <elaine.bennett@ftec.ie>
Cc: Dineen McDemott <dineen.mcdermott@netshare.ie>; Kevin O'Neill <kevin.oneill@netshare.ie>; Darragh Dennehy <darragh.dennehy@netshare.ie>; David Powders <david.powders@netshare.ie>
Subject: Ref: P0878/Let/EB/MG: North Kildare Wind Farm Development

Hi Elaine,

I received your letter, dated the 12th of July, and scoping document, outlining the proposed wind farm development just south of Enfield, in North Kildare.

While the document was detailed, it lacked precise co-ordinates for the proposed turbines, anywhere in the document. The location description allowed me to approximate the location, see below. Since I have reason to believe there will be an impact, can you please send me a list of Easting/Northing Irish Grid co-ordinates for the 14 proposed turbines, which were mapped, but not detailed in the scoping document.

I can then assess the impact.

Based on current information provided, there is an impact on Vodafone services and we will be objecting to this development. Further information will help us to make a more informed response.

cid:image004.jpg@01041DB8-94A876C0

Regards,

Gavin Byrne BSc, MSc, MSEE
Transmission Planning & Strategy Engineer
Netshare Ireland
Kingsh Road, The Park, Carrickmines, Dublin 18
mobile: +353 87 6446159
email: gavin.byrne@netshare.ie

Netshare Logo



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Brian Cronin

From: Matthew Craig <matthew.craig@2rn.ie>
Sent: Monday 20 May 2024 10:50
To: Brian Cronin
Cc: windfarms@rte.ie; Johnny Evans
Subject: RE: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm
Attachments: 2RN signed agreement(1.1)Nth Kildare WF.pdf

Hi Brian,

I have changed the date on the agreement, signed it and attached it to this mail.

Regards

Matthew Craig

Project Engineer
Projects and Coverage Planning
2RN
Block B, Cookstown Court, Old Belgard Road, Tallaght, Dublin 24, Ireland
D24 WK28
Phone: + 353 (0) 1 2082261
Mobile: + 353 (0) 87 7509955

From: Brian Cronin <brian.cronin@ftco.ie>
Sent: Monday, May 20, 2024 10:38:49 AM (UTC+00:00) Dublin, Edinburgh, Lisbon, London
To: Matthew Craig <matthew.craig@2rn.ie>
Cc: Info <info@ftco.ie>; Johnny Evans <johnny.evans@2rn.ie>; windfarms <windfarms@rte.ie>
Subject: RE: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Caution - This email originated from outside RTÉ. Do not click any link, do not open attachments unless you can confirm the sender and do not scan any QR codes in any emails.

Good morning Matthew,

Thank you for your response to our scoping letter last week.

I've had a look at our records and it seems we have signed an agreement with 2RN in 2018. Will this suffice for your needs or is there a requirement to draw up a new agreement?

Many thanks,

Brian

From: Matthew Craig <matthew.craig@2rn.ie>
Sent: Monday, May 13, 2024 11:08 AM
To: Info <info@ftco.ie>

Cc: windfarms@rte.ie; Johnny Evans <johnny.evans@2rn.ie>

Subject: RE: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Hi Brian,

2rn have no fixed linking in the area.

There is however a risk of interference to broadcast services in the area.

We would therefore ask that a protocol be signed between the developer and 2rn and recommend that a TV reception survey be undertaken before construction commences.

Regards

Matthew Craig

Project Engineer

Projects and Coverage Planning

2RN

Block B, Cookstown Court, Old Belgard Road, Tallaght, Dublin 24, Ireland

D24 WK28

Phone: + 353 (0) 1 2082261

Mobile: + 353 (0) 87 7509955

From: Info <info@ftco.ie>

Sent: Monday, May 13, 2024 9:57:03 AM (UTC+00:00) Dublin, Edinburgh, Lisbon, London

Subject: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

You don't often get email from info@ftco.ie. [Learn why this is important](#)

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Dear Sir/Madam,

North Kildare Wind Farm Limited intends to apply to An Bord Pleanála for planning permission for the development of a proposed wind farm; and a separate planning permission for a substation which will facilitate connection of the wind farm to the national grid. We, Fehily Timoney and Company, are acting as the Agent for North Kildare Wind Farm Ltd, assisting them in making their planning application.

We have engaged with you in the past as part of pre-application consultations regarding a previous iteration of this Proposed Development. That iteration of the Proposed Development had been initially consented by An Bord Pleanála in 2020 following an appeal against Kildare County Council's decision (ABP Ref. 306500-20). However, we have made some changes to the layout and method of connection to the national grid and as such, we are now seeking planning consent for a slightly revised Proposed Development. Therefore, we are consulting with you to advise of the changes to the previously considered development proposal. We would be interested in receiving any opinions, further information or comments you may have on the Proposed Development application.

Please find attached scoping letter which details the recent changes to the Proposed Development.

If you have no comments to make, I would be grateful if you would please acknowledge receipt of this correspondence.

Many thanks,

Brian Cronin.

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d'fhéadfadh ríomhphost chuig, ó agus laistigh de RTÉ a bheith faoi réir an Achta um Shaoráil Faisnéise 2014, agus d'fhéadfadh go ndéanfaí é a nochtadh.

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Brian Cronin

From: Info
Sent: Tuesday 18 June 2024 16:32
To: Brian Cronin
Subject: FW: TS_7E-209341/24 : (External)North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm
Attachments: 22-242-FT-EGN-XX-LT-EN-0003 - Drehid scoping letter.pdf

Kind Regards,
Emma

From: O Doherty, Darragh <Darragh.P.Odoherty@garda.ie>
Sent: Tuesday, June 18, 2024 3:18 PM
To: Info <info@ftco.ie>
Cc: Telecoms_DS <Telecoms_DS@garda.ie>
Subject: FW: TS_7E-209341/24 : (External)North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Good Afternoon,

Re External)North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Track Trouble Ticket - TT193691 - Service Request

View the Trouble Ticket details below:

Trouble Ticket Details

Ticket Number:	TT193691	Agency:	Garda
Submitted Date:	May 20 2024 12:05PM	Submitted By:	Darragh ODoherty
Location:	GHQ	Contact Phone:	0860465564
Customer Ref:		Priority:	P4
Initial Response:	[Date: May 20 2024 12:09PM - By: David Murphy]		
Assigned To:	Colin Fennessy	Status:	Closed

Resolution: No issues here, Cappagh nearest site 7km away
Closed Date: 15 Jun 2024 11:25 - **Closed By:** Colin Fennessy

Title:	Proposed windfarm North Kildare
Description:	Hi, Could you please look into any potential impact at proposed site. I will forward on attachments via email now.
Category:	RF Impact Assessment

Regards,

Darragh O'Doherty | Executive Officer | NDRS | Garda Headquarters, Phoenix Park, Dublin 8, Ireland, D08 HN3X |
Email Darragh.P.O'Doherty@garda.ie | Tel: 01 6662205 | Mobile: 086 0465564 | <http://www.garda.ie/>

☐ Le do thoil, cuimhnigh ar an imshaol roimh priontáil an ríomhphost seo. Please consider the environment before printing this e-mail.

From: Telecoms_DS

Sent: Wednesday 15 May 2024 15:24

To: O Doherty, Darragh <Darragh.P.O'Doherty@garda.ie>

Cc: 'info@ftco.ie' <info@ftco.ie>

Subject: TS_7E-209341/24 : (External)North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

TS_7E-209341/24

Darragh O'Doherty
NDRS

Re External)North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

The below request is forwarded for necessary attention, please.

Sent on behalf of Acting Superintendent Michael McDonnell

Telecoms_DS

Telecoms. Administration Office | Garda H.Q.

Email: Telecoms.DS@garda.ie - Tel: + 353 (0) 1 6662213 | <http://www.garda.ie/>

☐ Le do thoil, cuimhnigh ar an imshaol roimh priontáil an ríomhphost seo. Please consider the environment before printing this e-mail.

The below request is forwarded for necessary attention, please.

Originally sent to M. McDonnell 23/04/24

Sent on behalf of Acting Superintendent Michael McDonnell

Telecoms_DS

Telecoms. Administration Office | Garda H.Q.

Email: Telecoms.DS@garda.ie - Tel: + 353 (0) 1 6662213 | <http://www.garda.ie/>

☐ Le do thoil, cuimhnigh ar an imshaol roimh priontáil an ríomhphost seo. Please consider the environment before printing this e-mail.

From: ICT_Director <ICT_Director@garda.ie>
Sent: Monday 13 May 2024 10:07
To: Telecoms_DS <Telecoms_DS@garda.ie>
Cc: ICT_Director <ICT_Director@garda.ie>; McDonnell, Michael <michael.mcdonnell@garda.ie>
Subject: FW: (External)North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

ICT_5-209341/24

**A/Superintendent
Telecoms**

The attached correspondence from Brian Cronin, Fehily Timoney and Company, is forwarded for your attention, please.

Sent on behalf of the Chief Information Officer

Regards
Sibeal

Sibéal Byrne | Clerical Officer | Office of the Executive Director (Chief Information Officer) & Office of the Director ICT | Garda Headquarters, Phoenix Park, Dublin 8, Ireland, D08 HN3X |

Email sibeal.r.byrne@garda.ie | Tel: + 353 (0) 1 6661453 | <http://www.garda.ie/>

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From: Info <info@ftco.ie>
Sent: Monday 13 May 2024 09:57
Subject: (External)North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

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Dear Sir/Madam,

North Kildare Wind Farm Limited intends to apply to An Bord Pleanála for planning permission for the development of a proposed wind farm; and a separate planning permission for a substation which will facilitate connection of the wind farm to the national grid. We, Fehily Timoney and Company, are acting as the Agent for North Kildare Wind Farm Ltd, assisting them in making their planning application.

We have engaged with you in the past as part of pre-application consultations regarding a previous iteration of this Proposed Development. That iteration of the Proposed Development had been initially consented by An Bord Pleanála in 2020 following an appeal against Kildare County Council's decision (ABP Ref. 306500-20). However, we have made some changes to the layout and method of connection to the national grid and as such, we are now seeking planning consent for a slightly revised Proposed Development. Therefore, we are consulting with you to advise of the changes to the previously considered development proposal. We would be interested in receiving any opinions, further information or comments you may have on the Proposed Development application.

Please find attached scoping letter which details the recent changes to the Proposed Development.

If you have no comments to make, I would be grateful if you would please acknowledge receipt of this correspondence.

Many thanks,

Brian Cronin.

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APPENDIX 16.3

Netshare Impact Study of the Proposed Drehid Wind Farm

Wind Farm Impact Study

1 Summary

Impact Study of Proposed Wind Farm Development on Existing Vodafone Transmission Network

Analysis is submitted subject to accurate site co-ordinates, including accurate turbine details and accurate site details. Impact study is a worst case desktop study only, conducted in two planes with built in threshold values to ensure network integrity for Vodafone Ireland. Terrain, tower and turbine heights are not considered in this analysis.

Analysis is not final and is subject to change. Any changes to the proposed development will render this report null and void.

DATE OF ISSUE	10/09/2018
ISSUED BY	Gavin Byrne
Position	Transmission Planning and Strategy Engineer
Email Contact	gavin.byrne@netshare.ie
Phone Contact	+353876448159

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2 Wind Farm Proposal

2.1 Proposed wind farm details

Site Name: P0878/Lett/EB/MG: North Kildare Wind Farm Development

Proposed No. of Turbines: 12

2.2 Point of Contacts

Name	Company	Registered Office	Phone No.	Email
Silvia Garcia	Fehily Timoney and Company	Core House, Pouladuff Road, Cork, Ireland	Tel: +353 21 4969567 Mobile: +353 87 6822 239	silvia.garcia@ftco.ie

2.3 Provided Documentation



FW P0878LettEBMG
North Kildare Wind

2.4 Proposed Turbine Dimensions

	Proposal 1
Rotor Diameter (m)	137
Hub Height (m)	100.5
Max Hub Diameter (m)	12m (assumed)
Maximum Height (Hub Height + Rotor Radius) (m)	169

Table 1 - Proposed Turbine Dimensions

2.5 Turbine Location Details

<u>Turbine ID</u>	<u>Easting (Irish Grid)</u>	<u>Northing (Irish Grid)</u>	<u>WSG84 - Latitude (Decimal Degrees)</u>	<u>WSG84 - Longitude (Decimal Degrees)</u>
T1	273909	234323.5	53.35397385	-6.889902866
T2	274513	234151.5	53.35234359	-6.880871383

T3	274750	234665.6	53.35692909	-6.877205467
T4	274809	235246.7	53.36214165	-6.876181914
T5	274604	235664.8	53.3659266	-6.879148047
T6	274038	235876.9	53.36791114	-6.887602
T7	274280	236371	53.37231631	-6.883850001
T8	274765	236258	53.37123271	-6.876604079
T9	275109	236795.1	53.37600935	-6.871307525
T10	276081	237242.2	53.37988716	-6.85659338
T11	276448	236994.1	53.37760564	-6.851137792
T12	276360	237646.3	53.38347724	-6.852302723

Table 2 - Proposed Turbine Locations

3 Turbine Topology Details

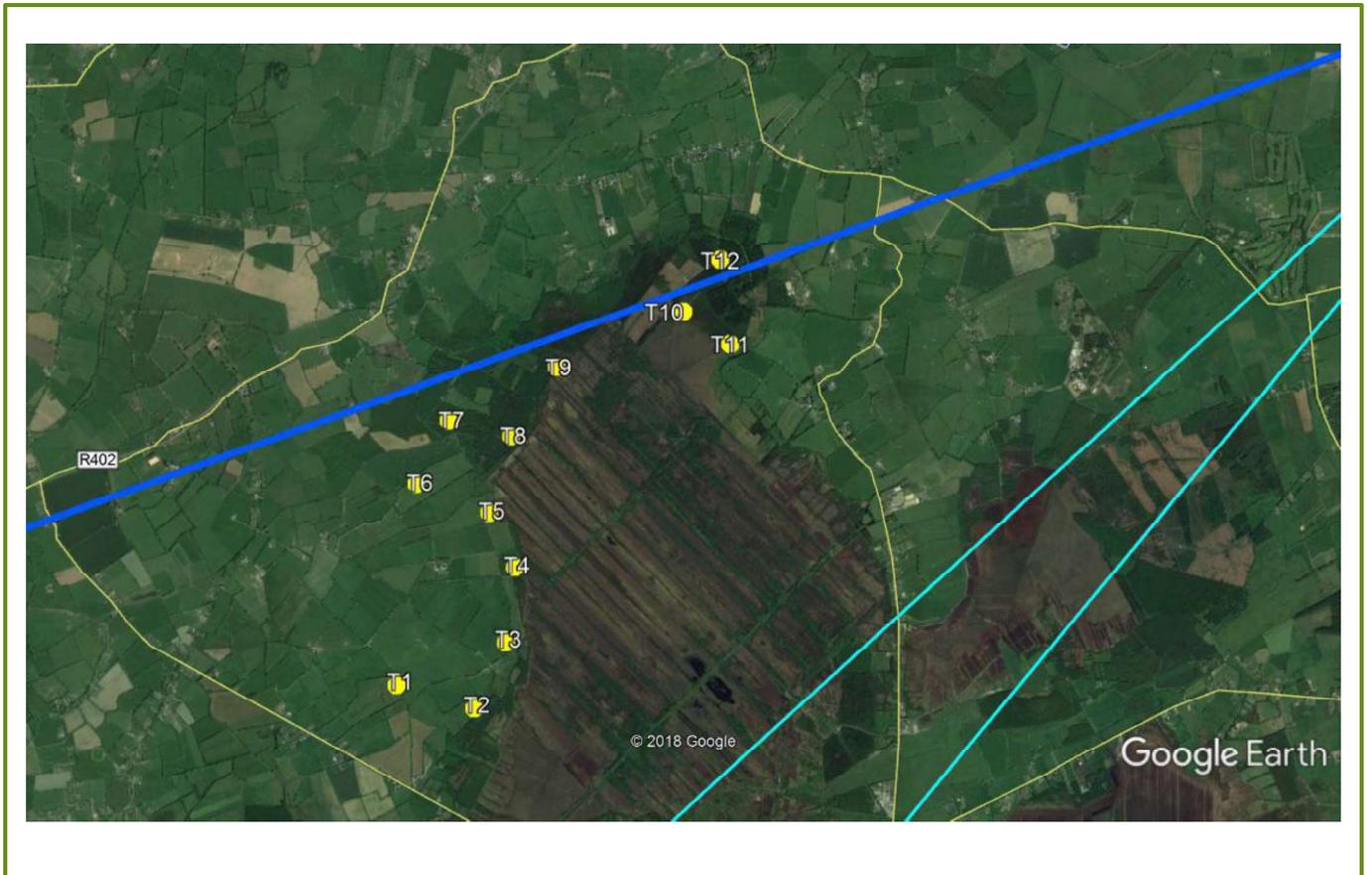


Figure 1 - Turbine Topology

4 Microwave Link Analysis

4.1 Link 1 Details

Vodafone Link Name:

	A End	B End
Site Name	Carbury COI	Cappagh
Site ID	KE020	KECAP
Easting / Northing (IG)	268880 / 234640	283452 / 240143
Latitude / Longitude (WGS84)	53.357719501 / -6.966226404	53.40505551 / -6.745971972
Hop Distance (km)	15.53	
Bearing (Degrees)	70.27	250.1
Frequency Band	15 GHz	

Table 3 - Vodafone Link Details (1)

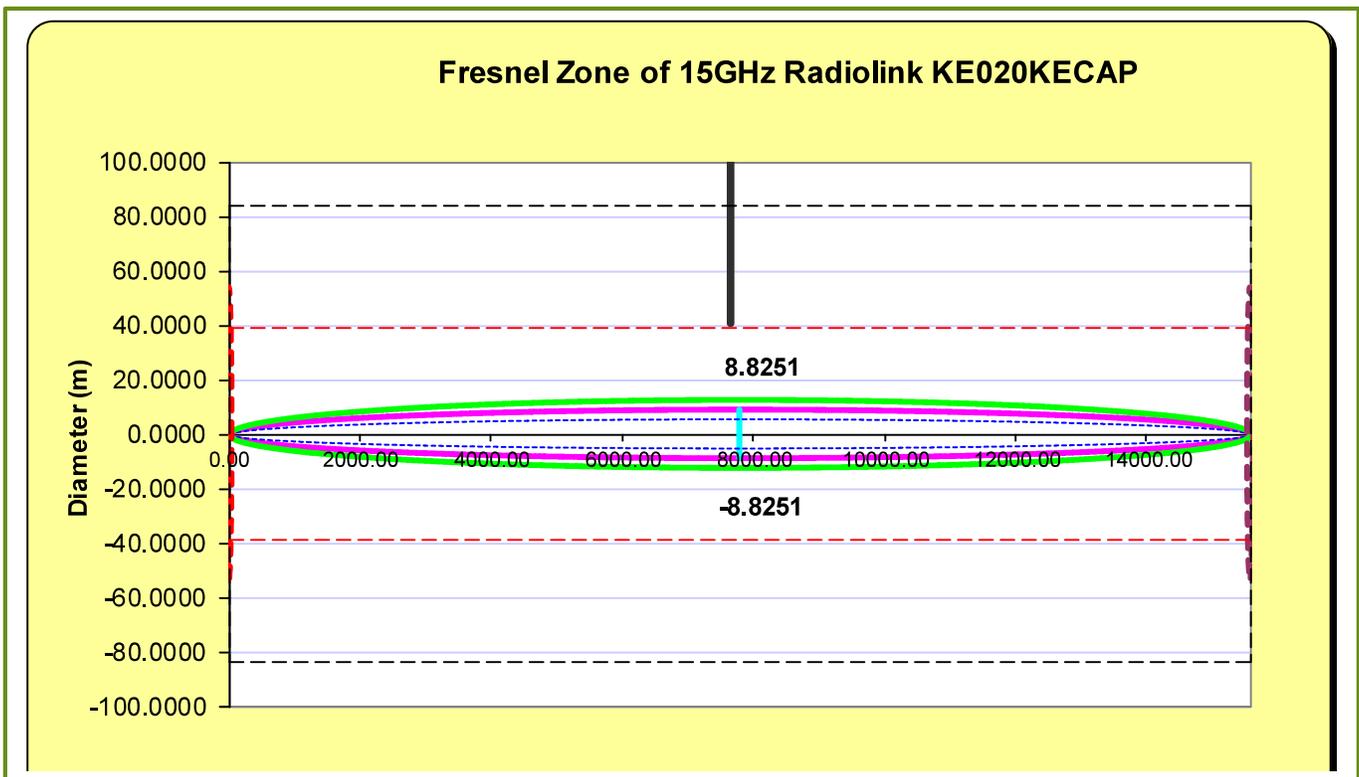


Figure 2 - 1st Fresnel zone of Link (1) and proximity of Turbine T10 Rotor Blades

4.2 Link (1) Technical Details

Wind Turbine Impact Study On Vodafone Transmission Network 10/09/2018

KE020KECAP Radiolink Details									
Site ID	Site Name	Easting	Northing	Dish Azimuth (Degrees EoN)	True Azimuth (Degrees)	Link Distance (km)	Link Frequency (GHz)	Max Fresnel Radius (m)	Worst Case Fresnel Zone Perpendicular Distance Tolerance (+/-m)
KE020	Carbury COJ	268882	234640	68.31	70.1419	15.58	15	8.83	
KECAP	Cappagh Eircom	283454	240143	249.31	250.3187	15.58	15	8.83	139.2780

Turbine Details										
Turbine ID	Wind Farm Development	Easting	Northing	LOS Azimuth from KE020 to Turbine (Deg EoN)	LOS Azimuth from KECAP to Turbine (Deg EoN)	Calculated Angle between radiolink LOS from KECAP and Turbine LOS to KECAP (Deg)	Path Length from KE020 To Turbine (m)	Path Length from KECAP To Turbine (m)	Perpendicular Distance between Turbine Hub Edge and 1st Fresnel Zone Edge (m)	Rotor Diameter (m)
T1	Bunmahon	273805.3	234223.52	93.60	238.63	24.29	8037.28	11178.87	2063.35	137.00
T2	Bunmahon	274513.5	234151.49	84.96	236.17	25.85	5652.61	10782.50	2437.72	137.00
T3	Bunmahon	274749.5	234665.6	89.75	237.82	20.44	5967.57	10284.46	2040.16	137.00
T4	Bunmahon	274808.5	235246.73	84.15	240.48	14.84	6957.50	9935.68	1517.35	137.00
T5	Bunmahon	274604.5	235684.82	79.85	243.16	10.54	5813.51	9918.08	1054.13	137.00
T6	Bunmahon	274038.4	235676.86	76.51	245.63	7.20	5302.62	10337.04	656.76	137.00
T7	Bunmahon	274280.4	236370.97	72.22	247.65	2.91	5669.13	9918.83	279.03	137.00
T8	Bunmahon	274764.5	236257.56	74.62	245.91	5.31	6100.56	9918.46	555.79	137.00
T9	Bunmahon	275108.6	236795.06	70.91	248.14	1.60	6588.97	8991.93	174.87	137.00
T10	Bunmahon	276060.6	237242.17	70.13	248.52	0.82	7654.65	7923.23	100.06	137.00
T11	Bunmahon	278447.9	236994.11	72.72	245.80	3.51	7923.64	7681.24	461.81	137.00
T12	Bunmahon	278359.8	237646.26	68.10	250.61	1.30	8099.51	7520.69	161.73	137.00

Turbine Impact Study on Radiolink KE020KECAP							
Turbine ID	Shortest to Longest Perpendicular Distance from Turbine Hub to 1st Fresnel Zone Edge (m)	Rotor Clearance from 1st Fresnel Zone Centre (m)	Minimum Clearance between 1st Fresnel Zone and Rotor Blade (m) (between 75m & 50m)	Clearance Status of Rotor Blades	Shortest to Longest Perpendicular Distance from Turbine Hub to Direct LOS of Radiolink (m)	Minimum Clearance between Direct LOS of Radiolink and Turbine Hub (m)	Clearance Status of Turbine Hub from Direct LOS of Radiolink
T10	100.06	31.56	75	Clearance between 30m & 75m From Fresnel Zone	104.47	6.5	OK
T12	161.73	93.23	75	OK	166.14	6.5	OK
T9	174.87	106.37	75	OK	179.28	6.5	OK
T7	279.03	210.53	75	OK	283.44	6.5	OK
T11	461.81	393.31	75	OK	466.22	6.5	OK
T8	555.79	487.29	75	OK	560.20	6.5	OK
T6	656.76	587.26	75	OK	660.17	6.5	OK
T5	1054.13	985.63	75	OK	1058.54	6.5	OK
T4	1517.35	1448.85	75	OK	1521.76	6.5	OK
T3	2040.16	1971.66	75	OK	2044.57	6.5	OK
T1	2063.35	1994.85	75	OK	2067.76	6.5	OK
T2	2437.72	2369.22	75	OK	2442.13	6.5	OK

5 Wind Farm Impact Study - Conclusions

Site Name	North Kildare Windfarm Development
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The following Vodafone radiolinks could be affected by this wind farm development due to the current proximity of planned wind turbine(s):

1. KE020KECAP

Please see report on radiolinks listed above for further details.

The following wind turbine(s) pose a threat to services on the Vodafone Network and if possible should be considered for relocation to ensure an acceptable perpendicular threshold distance of at least 75m:

1. T10

Refer to report for, exact details, all turbines marked critical

All Information provided is calculated based on the assumption that accurate co-ordinates are used. Additional information has been provided on existing Vodafone radiolinks, where applicable, that could be potentially affected to ensure that if any turbine(s) is/are moved, that planners will have all available information on Vodafone radiolinks to help them with this process.

Whilst the current position of the turbine T10 appears to be clear of the Microwave link KE020KECAP, it has been flagged in this report as amber, as it is almost exactly at the 30m threshold. We are not objecting to this position, but are seeking assurances that co-ordinates are accurate for all turbines and in particular T10, which is the closest turbine to this microwave link. We would be satisfied that there will be no impact under the following conditions

1. All listed co-ordinates are accurate.
2. Any micro-siting of turbines increases the exclusion zone threshold (30m) to further reduce risk.
3. Construction and erection of these turbines using cranes, etc, is done in a manner that does not interfere with the Line of site of this microwave during the construction phase.

DATE OF ISSUE	10/09/2018
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ISSUED BY	Gavin Byrne
Position	Transmission Planning and Strategy Engineer
Email Contact	gavin.byrne@netshare.ie
Phone Contact	+353876448159

APPENDIX 16.4

2rn Protocol Agreement



Block B, Cookstown Court,
Old Belgard Road, Tallaght,
Dublin 24, Ireland
Tel: +353 (0)1 208 2259
E-mail: 2rn@2rn.ie

Protocol Agreement

between

North Kildare Windfarm Limited

and



concerning the wind farm at:

North Kildare,

**Near Coolree, Kilmurry, Drehid,
Parsonstown, Ballynamullagh, Clonkeeran, Killyon and
Dunfierth, Co. Kildare**



“Developer”:

North Kildare Wind Farm Limited,
Unit C, Building 4200, Cork
Airport Business Park, Cork.
T12 D23C

Registered No. 573075

“2RN”:

RTÉ Transmission Network DAC
trading as “2RN”,
Montrose,
Donnybrook,
Dublin 4.

Registered No. 364909

“Development”:

Proposed development by way of
initial construction or
intensification of use of a wind
farm at Coolree, Kilmurry,
Drehid, Parsonstown,
Ballynamullagh, Clonkeeran,
Killyon and Dunfiirth, Co. Kildare

“Viewer(s)”:

Proprietor (or agent of proprietor)
of a private residence or
business premises where a
television set, for which a current
television licence is held, is used
and/or a broadcast radio
receiver.

“Local Dealer”:

Local dealer being a television
engineer / dealer carrying on
business in the vicinity of the
development and may be
nominated by the wind farm
developer.



Interference on Viewers' Television Sets and/or Broadcast Radio Receivers

1. When 2RN is put on notice, whether by telephone or written communication, that a viewer is having problems with their reception, 2RN will undertake a preliminary assessment, over the telephone or by other means of communication, and ascertain whether or not the wind farm is a likely cause of the interference complained of.
2. If 2RN believes the interference is wind farm related, the viewer will be asked to contact the wind farm developer. Then the developer will arrange for a local dealer to visit the viewer.
3. Both parties to this protocol note that the type of interference caused by electromagnetic disturbance emanating from wind farms manifests itself in very specific ways on television sets and broadcast radio receivers.
4. The local dealer will arrange directly with the viewer to make a visit to the viewer's house and assess the cause of the interference. The local dealer will take whatever steps are necessary to remedy the interference.
5. The local dealer will prepare a brief report in writing which will be sent to the developer. If the local dealer is of the view that the interference is due to interference from the development, the dealer will send an invoice in respect of the site visit and remedial work to the developer. The developer is the party primarily liable for the discharge of any amounts due in respect of any such site visit and remedial work. If the local dealer identifies that the problem is due to some other cause, the local dealer will invoice the viewer in the usual way.
6. Where the reception interference problem affects a number of viewers in the same vicinity, and this is identified by the local dealer and/or 2RN, it may be that it will be necessary for 2RN to develop an existing alternative or additional transposer site within that locality.
7. The developer in this instance will be responsible for all the costs associated with the development of the new transposer site, where this transposer site is necessitated by the presence of the development.
8. The maximum expenditure incurred by 2RN in the provision of the new transposer site (arising from section 6) will be €150,000, (such figure to be index linked upwards only – by reference to the Consumer Price Index published by the Central Statistics Office, calculated on the basis of the average increase over the 12-month period preceding demand for reimbursement by 2RN). A detailed estimate is to be submitted to the Developer in advance for comment, within a reasonable timeframe.

9. If the cost of acquiring and developing a new transposer site exceeds the sum of €150,000 the developer and 2RN will enter into negotiations to ascertain how the cost of remedying the problem being experienced by viewers in the locality might most equitably be met. The developer, however, shall be the party primarily liable for the discharge of any amounts due in respect of the acquisition and development of a new transposer site to the extent that such an acquisition and development is attributable to the presence of the development.
10. Where the acquisition and development of a transposer site is additional to the transposer(s) serving the locality prior to the commencement of operation of the development, the developer shall be liable to reimburse to 2RN the ongoing operational costs of the said additional transposer for so long as same shall be necessary to counteract the interference with viewers' reception caused by the development, up to a maximum of €15,000 per annum (such figure to be index linked – upwards only – by reference to the Consumer Price Index published by the Central Statistics Office, calculated on the basis of the average increase over the 12 month period preceding demand for reimbursement by 2RN).
11. The developer will be entitled to see copies of operational costs to the extent that company confidentially is not breached. All the 2RN costs involved in investigation and reports associated with the proposed development shall be covered by the developer if it is found that the said development is the cause of the interference.
12. The developer shall be entitled to retain its own engineer to inspect and report on the source of interference and if a transposer site is built, 2RN undertakes to facilitate access to the installation in question for the purposes of carrying out any such inspection and/or tests necessary.
13. The developer will indemnify 2RN fully in respect of damage to the person or property of any such engineer or inspector as retained by the developer, or any other agent or licensee of the developer involved in or associated with such inspection and/or tests. The developer will ensure that competent personnel only are deployed onto 2RN property under the terms of this clause and hereby indemnify 2RN in respect of any damage to 2RN's property or personnel caused by the negligence of such engineer, inspector or other agent or licensee.

Interference with 2RN installations (to include transmitter stations, transposers and, if applicable, links stations)

14. Where 2RN detects interference with the reception of a receive and/or transmission signal at a transposer site, 2RN will investigate the cause of the interference and report in writing to the developer if 2RN determines that the interference is attributable in whole or in part to the development.

15. The developer shall be entitled to retain its own engineer to inspect and report on the source of interference and 2RN undertakes to facilitate access to the installation in question for the purposes of carrying out any such inspection and/or tests necessary.
16. The developer will indemnify 2RN fully in respect of damage to the person or property of any such engineer or inspector as retained by the developer, or any other agent or licensee of the developer involved in or associated with such inspection and/or tests. The developer will ensure that competent personnel only are deployed onto 2RN's property under the terms of this clause and hereby indemnify 2RN in respect of any damage to 2RN's property or personnel caused by the negligence or such engineer, inspector or other agent or licensee.
17. Engineers representing both 2RN and (if applicable) the developer, will agree on remedial works (e.g. reorientation of reception antennas) and the cost of same. 2RN shall carry out the necessary remedial works and the cost of same shall be discharged/reimbursed to 2RN by the developer (subject to the provisions below).

In the following paragraph, the term "installation" shall mean one or more installation sites if applicable.

18. In the event that an additional or alternative installation is required in order to overcome reception or transmission problems caused exclusively by the development, 2RN shall identify a new location for such installation, within a reasonable timeframe.
19. The developer shall be responsible for all costs associated with the development of the new installation (e.g. repeat broadcasting station), where the new installation is necessitated exclusively because of interference caused by the development. The developer shall be liable for such costs up to a maximum of €150,000 (such figure to be index linked – upwards only – by reference to the Consumer Price Index published by the Central Statistics Office, calculated on the basis of the average increase over the 12-month period preceding demand for reimbursement by 2RN). Where the likely costs of such additional or alternative installation exceed €150,000 (as adjusted), 2RN and the Developer shall negotiate and determine between them how the costs of this new development might most equitably be met. The projected costs are to be submitted to and agreed with the developer prior to development of the new installation, within a reasonable timeframe.
20. Where the acquisition and development of a transposer site is additional to the transposer(s) serving the locality prior to the operation of the development, the

developer shall be liable to reimburse to 2RN the ongoing operational costs of the said additional transposer for so long as same shall be necessary to counteract the interference with viewers' reception caused by the development, up to a maximum of €15,000 per annum (such figure to be index linked – upwards only – by reference to the Consumer Price Index published by the Central Statistics Office, calculated on the basis of the average increase over the 12-month period preceding demand for reimbursement by 2RN.

21. The developer will be entitled to see copies of operational costs to the extent that company confidentially is not breached. All the 2RN costs involved in investigation and reports associated with the proposed development shall be covered by the Developer if it is found that the said development is the cause of the interference.

22. The parties agree that any dispute which arises concerning the interpretation of this Agreement shall first be referred to: -

- (a) in the case of 2RN, the Executive Director for the time being; and
- (b) in the case of the Developer, the Executive Director for the time being;

and such persons shall use all reasonable commercial efforts to resolve any such dispute within ten (10) Business Days.

23. If the dispute is not resolved by the relevant parties within the time period referred to above then save in respect for a dispute referable to the Expert, the parties may by agreement in writing attempt to settle all other disputes by mediation in accordance with the rules of the International Centre for Dispute Resolution (ICDR). To initiate the mediation a party must give notice in writing to the other party to the dispute requesting mediation and a copy of the request must be sent to ICDR. The mediation will start not later than 20 days after the date of such notice. The commencement of mediation will not prevent the parties commencing or continuing court proceedings. Unless otherwise agreed between the parties

- (a) the mediator will be nominated by ICDR;
- (b) the costs of the mediator shall be borne and discharged as to 50% by the Company and as to the remaining 50% by the Developer, and
- (c) the mediation shall be conducted in Dublin, Ireland, at a venue agreed upon by the parties and the mediator or, failing such agreement, at a venue selected by the mediator in his/her discretion.

24. If a dispute or difference arises between the parties that is technical in nature the parties may refer such dispute, by agreement in writing between the parties, for final determination to the Expert (as hereinafter defined).
25. The expert for the purposes of this Clause shall be an independent party who has expertise in the area giving rise to the dispute (the "Expert") appointed by the agreement by the parties, or in default of agreement on such appointment, on the application of either party, by the President for the time being of the Institute of Engineers of Ireland or his duly appointed deputy, who shall carry out his functions in accordance with the following:
- (a) in making a determination, the Expert shall act as an expert and not as an arbitrator and his decision shall (in the absence of manifest error (and the Expert shall give reasons for his determination)) be final and binding on the parties;
 - (b) the Expert shall afford both parties a reasonable opportunity to be heard and to state their respective cases and to advance arguments or evidence in support of their respective positions;
 - (c) each party shall bear the costs and expenses of all counsel and other advisers, witnesses and employees retained by it and the costs and expenses of the Expert shall be borne by the parties in the proportions the Expert may direct, or in the absence of direction, equally.
26. This Agreement shall be governed by and construed in accordance with the laws of Ireland. Subject always to clauses 20, 21 and 22 above, each of the parties agrees that the courts of Ireland are to have exclusive jurisdiction to settle any dispute arising out of or in connection with this Agreement.

Dated this 20th day of May 2024 ,

Signed for and on
behalf of 2RN

Signed for and on behalf
of the Developer



(Authorised signatory)



(Authorised signatory)

APPENDIX 16.5

Responses from Aviation Consultees

From: [Property Management](#)
To: [Silvia Garcia](#)
Cc: [Elaine Bennett](#)
Subject: FW: Query - North Kildare Wind Farm
Date: 26 September 2018 10:10:02
Attachments: [260238fb-7751-40dd-8dec-0136f109e014.png](#)
[image001.jpg](#)
[P0878_Fig1-1_SiteLocation_A3.pdf](#)
[a1a1a059-6c2f-4452-b670-d07ef0552601.png](#)

Hi Silvia,

Please see Air Corps comments below regarding the email you sent to them on 5th September.

Please note that all correspondence regarding proposals/planning applications should be sent to us here in Property Management in the Department of Defence and we then liaise with the Air Corps.

The attached documentation, which appears to be a pre-planning query, was received directly by Military ATS and refers to a proposed North Kildare Wind Farm. The following may assist the planner:

1. The total development lies within 20NM of Casement Aerodrome, within the lateral limits of R16 and MOA4. It appears that eight of the turbine locations indicated are within 3NM of the M4. The tip height is indicated to be 169m (555 feet).
2. The Air Corps has the following observations.
 - a. The Defence Forces is opposed to any windfarms or tall structures in the area contained within Restricted Area EI-R16 within 20NM of Baldonnel and the area contained within Military Operating Areas, MOAs 3 and 4 within 20NM of Baldonnel.
 - b. The N4/M4 is a critical route in support of Air Corps operational requirements and the Defence Forces is opposed to the erection of windfarms or tall structures within 3NM of this route which could affect Air Corps ability to access regional areas particularly at night or in poor weather.
 - c. As a result the Air Corps would recommend objection to the proposed development.
3. The Department of Defence has opposed such developments within the area proposed, including by this developer.

If you have any further queries please let me know.

Kind regards,
Olive

Olive Mulhall

Property Management Branch

An Roinn Cosanta

Department of Defence

Bóthar an Stáisiúin, An Droichead Nua, Contae Chill Dara, W12 AD93.

Station Road, Newbridge, Co.Kildare, W12 AD93.

T +353 (0)45 492189

E-mail: olive.mulhall@defence.ie

From: Silvia Garcia [<mailto:silvia.garcia@ftco.ie>]

Sent: 05 September 2018 11:56

To: MDL_AirspaceManagementCell <airspaceandobstacles@defenceforces.ie>

Cc: Elaine Bennett <elaine.bennett@ftco.ie>

Subject: Wind Farm in Co. Kildare

Dear Mr. Martin,

North Kildare Wind Farm Ltd (a subsidiary of Element Power Ireland Ltd) intends to apply for planning permission to construct a wind energy development between Prosperous and Enfield, in north Co. Kildare. The proposed wind farm site and grid connection includes lands in the townlands of Coolree, Kilmurry, Drehid, Parsonstown, Ballynamullagh, Clonkeeran, Killyon and Dunfierrh.

We have previously consulted with IAA, and they have advised us to contact Weston and Casement aerodromes to inform you of the development and request any comments/observations from your side.

Please find attached a figure showing the location of the proposed development and below the ITM coordinates of the turbines. The tip height of the turbines will be up to 169m and rotor diameter of 137m.

Any queries, do not hesitate to contact me.

Turbine No.	ITM X	ITM Y
1	673844	734350
2	674448	734178
3	674684	734692
4	674743	735273
5	674539	735691
6	673973	735903
7	674215	736397
8	674699	736284
9	675043	736821

10	676015	737268
11	676382	737020
12	676294	737672

Regards,

Silvia Garcia

Senior Project Scientist

Fehily Timoney & Company | Core House | Pouladuff Road | Cork | T12 D773 | Ireland

Tel: +353 21 496 4133 Direct Dial: +353 21 496 9565

Fax: +353 21 496 4464

Mail to: silvia.garcia@ftco.ie | Web: www.fehilytimoney.ie

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Registration No. 180497. Registered office: Core House, Pouladuff Road, Cork, Ireland

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léamh, a chóipeáil, ná a úsáid. Má fuair tú an ríomhphost seo in earráid, cur an seoltóir ar an eolas le casadh an ríomhphoist le do thoill agus scrios ansin

é. **Rinne Defence Forces Email Security Gateway mionscrúdú ar an ríomhphost seo le haghaidh víreais, loitiméirí, agus ábhar mailíseach.

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leis rúnda. Is leis an duine / nó daoine sin amháin a bhfuil siad

seolta chucu a bhaineann siad agus ní ceart iad a léamh ná a scaoileadh

chuig aon tríú páirtí gan cead roimh ré ón Roinn Cosanta.

Chun amharc ar an Chairt do Chustaiméirí, cliceáil ar

www.defence.ie/system/files/media/file-uploads/2018-06/customer-charter-2017-irish.pdf

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An Roinn Cosanta
Department of Defence

FEHILY TIMONEY & Co.

Distribution *EB*

03 AUG 2018

Job No: *PO878*

Correspondence No: *10*

Comment:

1st August, 2018.

Dr. Elaine Bennett,
Fehily Timoney & Company,
Core House,
Pouladuff Road,
Cork

Our Ref: 0099/2018
Your Ref: PO878/Lett/EB/MG

Re: North Kildare Wind Farm Environmental Impact Assessment Report – Scoping and Consultation Report.

Dear Dr. Bennett,

I refer to your letter of 12th July, 2018 regarding the North Kildare Wind Farm Environmental Impact Assessment Report – Scoping and Consultation Report.

Based on the information provided and following consultations with the Air Corps, the Department of Defence has the following initial observations on the scoping document:

1. As laid out within the Irish Air Corps wind farm policy, the sites within certain town lands and motorways / roads may be affected.
2. Para 5.16.2 & Para 5.16.4
Please forward the evaluation report as laid out within this paragraph when available for consideration.
3. Please forward the EIAR when available for consideration.
4. Request Impacts on aviation report when completed.

Please find enclosed the Air Corps Windfarm and Tall Structure Position Paper for reference.

We request that we be kept informed at each stage of the scoping/planning process.

Yours sincerely,

Olive Mulhall

Olive Mulhall
Property Management Branch.
Tel. (045) 492189

Cuirfear fáilte roimh chomhfhreagras 7 na Gaeilge.

Bóthar an Staislúin, An Droichead Nua, Contae Chill Dara.
Station Road, Newbridge, Co. Kildare.

Air Corps Windfarm / Tall Structure Position Paper

1. **Objective:** This policy is intended to ensure that
 - a. Air Corps operations and training may be accomplished in a safe and economical manner;
 - b. Baldonnel remains a viable aerodrome for IFR and VFR traffic;
 - c. The ability to train military flying skills is protected; and
 - d. Vital routes to and from the regions to Baldonnel and the Dublin area are protected to safeguard the ability of the Air Corps to fulfil its role.

2. **Statement of Policy:**
 - a. The Air Corps is opposed the erection of windfarms or other obstacles which will affect its ability to train and operate in a safe and economic manner.
 - b. The Air Corps is opposed to any windfarms or tall structures in the following areas:
 - (1) Lands underlying military airspace used for flying activity.
 - (a) The area contained in Danger Area EI-D1.
 - (b) The area contained in Danger Area EI-D5.
 - (c) The area contained within Danger Area EI-D6.
 - (d) The area contained within Danger Area EI-D13.
 - (e) The area contained within Danger Area EI-D14.
 - (f) The area contained within Restricted Area EI-R15.
 - (g) The area contained within Restricted Area EI-R16 within 20NM of Baldonnel.
 - (h) The area contained within Military Operating Areas, MOAs 3 and 4 within 20NM of Baldonnel.
 - (2) Areas wherein military flying occurs at low level as identified in the annexes listed below.
 - (a) Annex A: Low flying training areas within MOA 4 in the areas of
 - a. Blessington
 - b. Edenderry/Allenwood/Rathangan
 - c. Kilmeague/Newbridge
 - d. Athy
 - (b) Annex B: low flying training area West (LFTA WEST), in the vicinity of Blacksod, Co Mayo.
 - (3) A distance of 5NM or less from military installations.

- c. The following routes are identified as critical low level routes in support of Air Corps operational requirements and the Air Corps is opposed to the erection of windfarms or tall structures within 3NM of the route centerline which could affect Air Corps' ability to access regional areas.

- (1) N/M1
- (2) N/M2
- (3) N/M3
- (4) N/M4
- (5) N/M6
- (6) N/M7
- (7) N/M8
- (8) N/M9
- (9) N/M11
- (10) N25
- (11) N17 between Sligo and Knock
- (12) N15/N13 between Sligo and Letterkenny
- (13) N14 from Lifford to Letterkenny and R245 and R247 from Letterkenny to Fanad Head.

Applications or proposals for structures in these areas of a height greater than 45m above ground level at the site of the object must be referred to Irish Air Corps for assessment of potential impact on flight operations.

- d. In MOA 4 outside of the areas identified in b.(1) (2) and (3), and in MOA 5, applications or proposals for objects of a height greater than 45m above ground level at the site of the object must be referred to the Irish Air Corps for assessment of potential impact on flight operations.
- e. In all locations where windfarms are permitted it should be a condition that they meet the following lighting requirements
- (1) Single turbines or turbines delineating corners of a windfarm should be illuminated by high intensity obstacle lights
 - (2) Obstruction lighting elsewhere in a windfarm will be of a pattern that will allow the hazard be identified and avoided by aircraft in flight.
 - (3) Obstruction lights used should be incandescent or of a type visible to Night Vision Equipment. Obstruction lighting fitted to obstacles must 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.

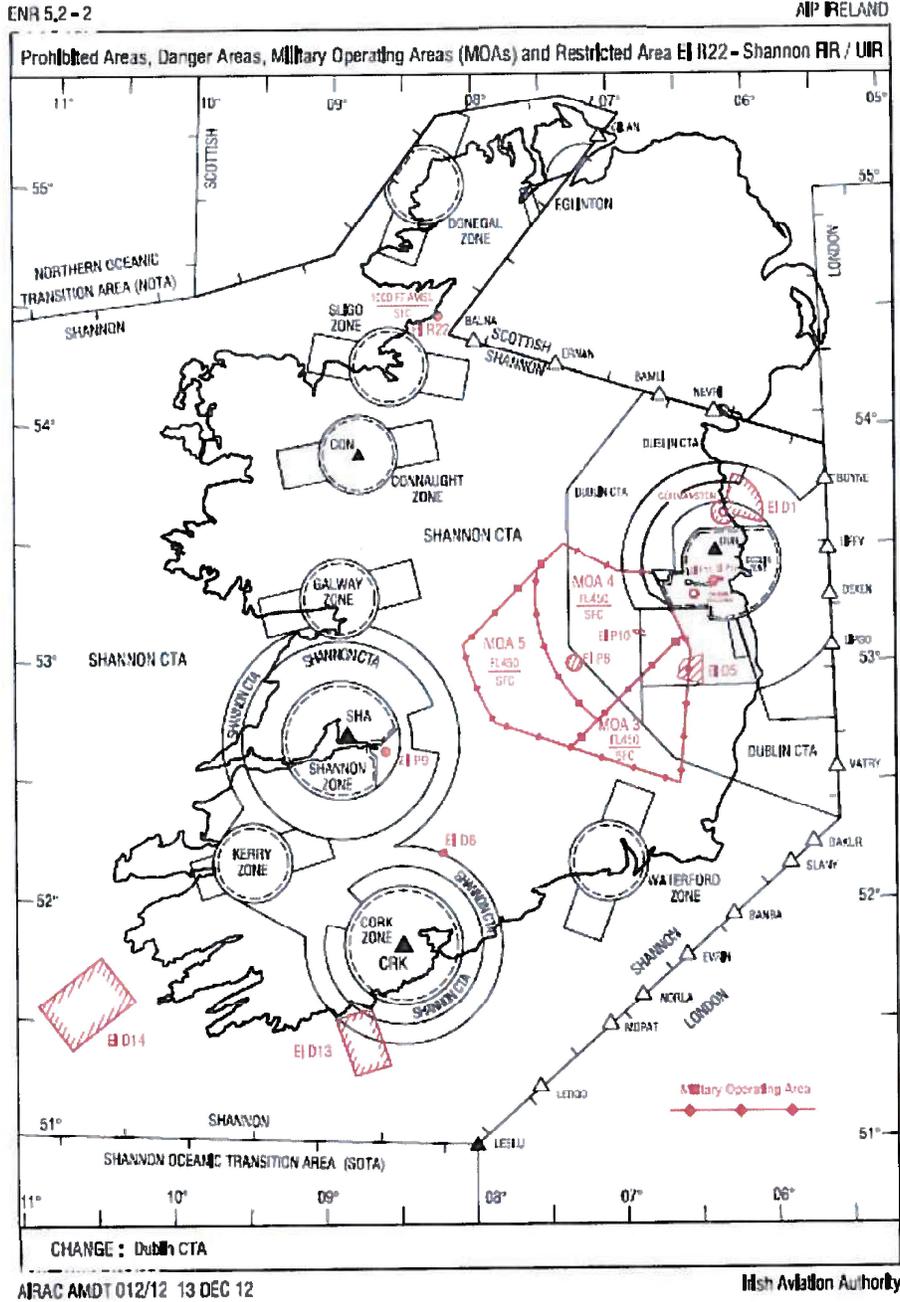
Annex B

Low Flying Area – LFTA West

1. Area contained within the following grid (Irish National Grid): L6972 L6945 M0745 M0772.
2. Routes are primarily within valley areas.
3. Applications for windfarms / masts should be referred to Air Corps Operations for assessment.

Annex C

Designated Airspace Restricted Areas, Danger Areas and Military Operating Areas



Annex D

Low Level Routes





Irish Aviation Authority
The Times Building
11-12 D'Olier Street
Dublin 2, D02 T449,
Ireland

Údarás Eitlíochta na hÉireann
Foirgneamh na hAmanna
11-12 Sráid D'Olier
Baile Átha Cliath 2, D02 T449,
Éire

T: +353 1 671 8655
F: +353 1 679 2934
www.iaa.ie



Date 30th July 2018

Ms. Elaine Bennett
Fehily Timoney & Company
Core House
Pouladuff Road
Co Cork

Development: Permission to construct a wind energy development between Prosperous and Enfield, in north Co. Kildare. The proposed wind farm site and grid connection includes lands in the townlands of Coolree, Kilmurry, Drehid, Parsonstown, Ballynamullagh, Clonkeeran, Killyon and Dunfierrth. Ref: P0878LETTEBMG

Dear Elaine

I refer to the request for planning permission for the above development, details of which were received by the Irish Aviation Authority from your company.

It is the observations of the Irish Aviation Authority that the applicant shall contact both Weston and Casement Aerodromes to inform them of the development and request any comments/observations from the two aerodromes.

Aerodrome	Name	Contact Details
Weston Aerodrome	Aidan Fox	afox@westonairport.com
Casement Aerodrome	Lt. Col. Ray Martin	airspaceandobstacles@defenceforces.ie

The Authority will require further information to conduct a full assessment of the development. We will require:

1. The number of turbines
2. Contoured Map with proposed locations
3. Ground elevations of each turbine
4. Blade tip height of each turbine.

It should be noted that dependent on the overall height above ground level of any proposed turbine, an assessment may be required to assess the impact on Instrument Flight Procedures for nearby aerodromes, the cost of which shall be covered by the applicant. However, the Authority is not in a position to determine if an assessment is required to be conducted at this stage based on the information available and this will require engagement with the aerodrome operator directly.

In the event of planning consent being granted, the applicant will be conditioned to contact the Irish Aviation Authority to (1) agree an aeronautical obstacle warning light scheme for the wind farm development, (2) provide as-constructed coordinates in WGS84 format together with ground and tip height elevations at each wind turbine location and (3) notify the Authority of intention to commence crane operations with a minimum of 30 days prior notification of their erection."

Yours sincerely

Deirdre Forrest
Corporate Affairs

FEHILY TIMONEY & Co.

Distribution

01 AUG 2018

Job No: **P0878**

Correspondence No:

Comment:

Bord Stiúirthóirí/Board of Directors
Peter Kearney (Príomhfhéidhmeannach/Chief Executive)
Marie Bradley, Ernie Donnelly, Pascal Fitzgerald,
Michael Norton

Offig Chláraithe:
Foirgneamh na hAmanna, 11-12 Sráid D'Olier
Baile Átha Cliath 2, D02 T449, Éire
Uimhir Chláraithe: 211082. Áit Chláraithe: Éire
Cuideachta Dlíteanais Theoranta

Registered Office:
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Dublin 2, D02 T449, Ireland
Registered No. 211082. Registered in Ireland
A Limited Liability Company



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Brian Cronin

From: Brian Cronin
Sent: Friday 6 September 2024 11:18
To: planning@daa.ie
Subject: Drehid Wind Farm SID
Attachments: P22-242 Drehid Scoping Update Letter -Specific to DAA.pdf

Dear Sir/Madam,

North Kildare Wind Farm Limited intends to apply to An Bord Pleanála for planning permission for the development of a proposed wind farm; and a separate planning permission for a substation which will facilitate connection of the wind farm to the national grid. We, Fehily Timoney and Company, are acting as the Agent for North Kildare Wind Farm Ltd, assisting them in making their planning application.

We have would have contacted you in the past as part of pre-application consultations regarding a previous iteration of this Proposed Development. That iteration of the Proposed Development had been initially consented by An Bord Pleanála in 2020 following an appeal against Kildare County Council's decision (ABP Ref. 306500-20). However, we have made some changes to the layout and method of connection to the national grid and as such, we are now seeking planning consent for a slightly revised Proposed Development. Therefore, we are consulting with you to advise of the changes to the previously considered development proposal. We would be interested in receiving any opinions, further information or comments you may have on the Proposed Development application.

Please find attached scoping letter which details the recent changes to the Proposed Development.

If you have no comments to make, I would be grateful if you would please acknowledge receipt of this correspondence.

Many thanks,

Brian Cronin.



Brian Cronin
Senior Environmental Scientist

Fehily Timoney and Company
Unit 3/4, Northwood House, Northwood Crescent, Northwood, Dublin 9, D09 X899
t: +353 (0)1 6583500

www.fehilytimoney.ie  

Brian Cronin

From: Planning <planning@iaa.ie>
Sent: Wednesday 24 July 2024 08:49
To: Brian Cronin
Cc: Emma Davidson; Planning
Subject: RE: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Follow Up Flag: Follow up
Flag Status: Completed

Hi Brian,

Thank you for your email.
I have reviewed the email addresses provided and note you have the correct email address for Air Nav.
For the daa, email address is as follows: planning@daa.ie

Kind regards,

Dave

From: Brian Cronin <brian.cronin@ftco.ie>
Sent: Tuesday, July 23, 2024 12:21 PM
To: Planning <planning@iaa.ie>
Cc: Emma Davidson <emma.davidson@ftco.ie>
Subject: RE: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

*** This message originated from outside the Irish Aviation Authority. Please treat hyperlinks, attachments and instructions in this email with caution. ***

Dear Dave,

Thank you very much for your response to our scoping letter which we sent out a couple of months ago.

As you advised, we attempted to reach out to Dublin Airport Authority and AirNav Ireland. However, we cannot seem to get a response from either. Would you be able to advise on the best contacts for these? Below are the email addresses we've tried:

AirNav Ireland: planning@airnav.ie
Dublin Airport Authority: info@dublinairport.com

If you know of better contact details I would really appreciate you providing same.

Many thanks,

Brian

From: Planning <planning@iaa.ie>

Sent: Wednesday, May 29, 2024 11:22 AM

To: Info <info@ftco.ie>

Cc: Planning <planning@iaa.ie>

Subject: RE: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Dear Brian,

Thank you for your scoping letter and request for comments in relation to the proposed North Kildare Wind Farm. The proposed development appears to be approximately 40km SW of Dublin Airport, as such, it is the observation of the Irish Aviation Authority, that even at this pre-planning stage, it would be prudent to engage as early as possible with daa Dublin Airport and the air navigation service provider, AirNav Ireland to undertake a preliminary screening assessment to confirm that the proposed wind farm and the associated cranes that would be utilised during its construction would have no impact on instrument flight procedures, communication and navigation aids or other en route communication, navigation and surveillance equipment.

It is likely that the following general observations would be proffered by the Authority during a formal planning process: In the event of planning consent being granted, the applicant should be conditioned to contact the Irish Aviation Authority to:

- (1) agree an aeronautical obstacle warning light scheme for the wind farm development,
- (2) provide as-constructed coordinates in WGS84 format together with ground and blade tip height elevations at each wind turbine location and
- (3) notify the Authority of intention to commence crane operations with at least 30 days prior notification of their erection.

Kind regards,

Dave

The Times Building, 11-12 D'Olier Street, Dublin 2, D02 T449



ÚDARÁS EITLÍOCHTA NA hÉIREANN
IRISH AVIATION AUTHORITY

From: Planning <planning@iaa.ie>

Sent: Monday, May 13, 2024 5:30 PM

To: 'info@ftco.ie' <info@ftco.ie>

Cc: Planning <planning@iaa.ie>

Subject: FW: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Dear Brian,

Thank you for your email and I acknowledge receipt of the scoping letter for the proposed Drehid Wind Farm, Co Kildare.

We will review and revert as soon as practicable.

Kind regards,

Dave

From: Info <info@ftco.ie>

Sent: Monday, May 13, 2024 9:57 AM

Subject: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

*** This message originated from outside the Irish Aviation Authority. Please treat hyperlinks, attachments and instructions in this email with caution. ***

Dear Sir/Madam,

North Kildare Wind Farm Limited intends to apply to An Bord Pleanála for planning permission for the development of a proposed wind farm; and a separate planning permission for a substation which will facilitate connection of the wind farm to the national grid. We, Fehily Timoney and Company, are acting as the Agent for North Kildare Wind Farm Ltd, assisting them in making their planning application.

We have engaged with you in the past as part of pre-application consultations regarding a previous iteration of this Proposed Development. That iteration of the Proposed Development had been initially consented by An Bord Pleanála in 2020 following an appeal against Kildare County Council's decision (ABP Ref. 306500-20). However, we have made some changes to the layout and method of connection to the national grid and as such, we are now seeking planning consent for a slightly revised Proposed Development. Therefore, we are consulting with you to advise of the changes to the previously considered development proposal. We would be interested in receiving any opinions, further information or comments you may have on the Proposed Development application.

Please find attached scoping letter which details the recent changes to the Proposed Development.

If you have no comments to make, I would be grateful if you would please acknowledge receipt of this correspondence.

Many thanks,

Brian Cronin.

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Times Building, 11-12 D'Olier Street, Dublin 2. D02 T449 Registered Number: 211082 Place of Registration: Ireland A limited liability company

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Times Building, 11-12 D'Olier Street, Dublin 2. D02 T449 Registered Number: 211082 Place of Registration: Ireland A limited liability company

From: [Info](#)
To: [Brian Cronin](#)
Subject: FW: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm
Date: Wednesday 29 May 2024 12:58:26
Attachments: [image001.png](#)

Hi Brian,

Please see email below.

Kind regards,

Kate

From: Planning <planning@iaa.ie>
Sent: Wednesday, May 29, 2024 11:22 AM
To: Info <info@ftco.ie>
Cc: Planning <planning@iaa.ie>
Subject: RE: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Dear Brian,

Thank you for your scoping letter and request for comments in relation to the proposed North Kildare Wind Farm

The proposed development appears to be approximately 40km SW of Dublin Airport, as such, it is the observation of the Irish Aviation Authority, that even at this pre-planning stage, it would be prudent to engage as early as possible with daa Dublin Airport and the air navigation service provider, AirNav Ireland to undertake a preliminary screening assessment to confirm that the proposed wind farm and the associated cranes that would be utilised during its construction would have no impact on instrument flight procedures, communication and navigation aids or other en route communication, navigation and surveillance equipment.

It is likely that the following general observations would be proffered by the Authority during a formal planning process: In the event of planning consent being granted, the applicant should be conditioned to contact the Irish Aviation Authority to:

- (1) agree an aeronautical obstacle warning light scheme for the wind farm development,
- (2) provide as-constructed coordinates in WGS84 format together with ground and blade tip height elevations at each wind turbine location and
- (3) notify the Authority of intention to commence crane operations with at least 30 days prior notification of their erection.

Kind regards,

Dave

The Times Building, 11-12 D'Olier Street, Dublin 2, D02 T449

From: Planning <planning@iaa.ie>
Sent: Monday, May 13, 2024 5:30 PM
To: 'info@ftco.ie' <info@ftco.ie>
Cc: Planning <planning@iaa.ie>
Subject: FW: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Dear Brian,

Thank you for your email and I acknowledge receipt of the scoping letter for the proposed Drehid Wind Farm, Co Kildare.
We will review and revert as soon as practicable.

Kind regards,

Dave

From: Info <info@ftco.ie>
Sent: Monday, May 13, 2024 9:57 AM
Subject: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

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Dear Sir/Madam,

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We have engaged with you in the past as part of pre-application consultations regarding a previous iteration of this Proposed Development. That iteration of the Proposed Development had been initially consented by An Bord Pleanála in 2020 following an appeal against Kildare County Council's decision (ABP Ref. 306500-20). However, we have made some changes to the

layout and method of connection to the national grid and as such, we are now seeking planning consent for a slightly revised Proposed Development. Therefore, we are consulting with you to advise of the changes to the previously considered development proposal. We would be interested in receiving any opinions, further information or comments you may have on the Proposed Development application.

Please find attached scoping letter which details the recent changes to the Proposed Development.

If you have no comments to make, I would be grateful if you would please acknowledge receipt of this correspondence.

Many thanks,

Brian Cronin.

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Office: The Times Building, 11-12 D'Olier Street, Dublin 2. D02 T449 Registered Number:
211082 Place of Registration: Ireland A limited liability company

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=====



Mr. Cronin
Fehily Timoney
Core House
Pouladuff Road
Cork
T12 D773

28 May 2024

RE: EIAR Scoping Consultation for the Proposed Drehid Wind Farm, County Kildare.

Dear Mr. Cronin,

I refer to your letter, dated 13 May 2024, in relation to the EIAR scoping consultation for the proposed Drehid Wind Farm, Co. Kildare.

I wish to advise at the outset that any determination in relation to a planning consent is solely a matter for the planning authorities and/or ABP, as appropriate. Therefore, the following observation is made on a non-prejudicial basis, and is not intended to be used to rely on for a prospective planning application, nor is this observation to be relied on in the event of any commercial transaction pertaining to such lands and it is not to be relied on in the event of any contract exchange pertaining to same.

As a matter of practice, the Department of Defence does not provide observations or advice in the scoping process, except where the relevant parties have been directed by a planning authority to seek the Department's views.

Based on the information supplied and following consultations with the subject matter in the Irish Air Corps, the Department of Defence wishes to make the following observations:

- All turbines should be illuminated by Type C, Medium intensity, Fixed Red obstacle lighting with a minimum output of 2,000 candela to be visible in all directions of azimuth and to be operational H24/7 days a week. Obstacle lighting should be incandescent or, if LED or other types are used, of a type visible to Night Vision equipment. Obstacle lighting used must emit light at the near Infra-Red (IR) range of the electromagnetic spectrum, specifically at or near 850



nanometres (nm) of wavelength. Light intensity to be of similar value to that emitted in the visible spectrum of light.

- Based on the information provided, if this proposed development was to go to the planning stage, the Department of Defence would be obligated to raise the following concerns and advise the planning authorities accordingly that the proposed Drehid Wind Farm lays in proximity to the Irish Air Corps Restricted Area EI-R16 within 20NM of Baldonnel and the area contained within Military Operating Areas, MOAs 3 and 4 within 20NM of Baldonnel.

Any Irish Air Corps (IAC) requirements for are separate to Irish Aviation Authority (IAA) require

We would appreciate if you could keep us informed on any progress relating to this proposed development.

Nothing in the above observation shall be taken as a binding response by the Minister for Defence in the event that a planning application is made. The Minister reserves the right to comment on an actual planning application as and when it is submitted in accordance with the provisions of the planning regulatory code.

Please contact me if you have any queries in this regard.

Yours faithfully,

Sent via e-mail

Gillian Holden
Property Management Branch
Department of Defence
Station Road
Newbridge
Co. Kildare W12 AD93

Brian Cronin

From: Info
Sent: Tuesday 28 May 2024 13:54
To: Brian Cronin
Subject: FW: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm
Attachments: 28-05-2024 Observation Letter for Drehid Wind Farm Co Kildare.pdf
Follow Up Flag: Follow up
Flag Status: Completed

Hi Brian.

Please see email below and attachment received in info inbox today.

Kind regards,

Kate

From: Defence Property Management Planning <PropertyManagementPlanning@defence.ie>
Sent: Tuesday, May 28, 2024 1:34 PM
To: Info <info@ftco.ie>
Cc: Sarah Kelly (Defence) <Sarah.Kelly@defence.ie>; Don Watchorn (Defence) <Don.Watchorn@defence.ie>
Subject: RE: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Dear Mr. Cronin,

Re: EIAR Scoping consultation for the proposed Drehid Wind Farm, Co. Kildare.

In reference to your email and letter dated 13 May 2024, please attached the Department's response.

Kind Regards,
Gillian

Gillian Holden

Property Management Branch

An Roinn Cosanta

Department of Defence

Bóthar an Stáisiúin, An Droichead Nua, Contae Chill Dara, W12 AD93.

Station Road, Newbridge, Co.Kildare, W12 AD93.

T+353 (045) 45 2043

M +353 87 1660640

E-mail: gillian.holden@defence.ie

www.defence.ie

Follow us on Twitter: [Department of Defence](#) | [Civil Defence](#) | [Office of Emergency Planning](#)

From: Defence Property Management Planning <PropertyManagementPlanning@defence.ie>

Sent: Monday 13 May 2024 12:54

To: info@ftco.ie

Cc: Gillian Holden (Defence) <Gillian.Holden@defence.ie>; Sarah Kelly (Defence) <Sarah.Kelly@defence.ie>

Subject: FW: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Dear Mr. Cronin,

The Department of Defence wished to acknowledge receipt of your e-mail below re: Drehid Windfarm, County Kildare. We will consult with the relevant Military Authorities and we will revert in due course.

For your records, you may wish to note please note, the e-mail address for all planning relating correspondence to the Dept. of Defence is propertymanagementplanning@defence.ie

Kind Regards

Don Watchorn

Property Management Branch

An Roinn Cosanta

Department of Defence

Bóthar an Stáisiúin, An Droichead Nua, Contae Chill Dara, W12 AD93.

Station Road, Newbridge, Co.Kildare, W12 AD93.

From: Info <info@ftco.ie>

Sent: Monday 13 May 2024 09:57

Subject: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

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Dear Sir/Madam,

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connection of the wind farm to the national grid. We, Fehily Timoney and Company, are acting as the Agent for North Kildare Wind Farm Ltd, assisting them in making their planning application.

We have engaged with you in the past as part of pre-application consultations regarding a previous iteration of this Proposed Development. That iteration of the Proposed Development had been initially consented by An Bord Pleanála in 2020 following an appeal against Kildare County Council's decision (ABP Ref. 306500-20). However, we have made some changes to the layout and method of connection to the national grid and as such, we are now seeking planning consent for a slightly revised Proposed Development. Therefore, we are consulting with you to advise of the changes to the previously considered development proposal. We would be interested in receiving any opinions, further information or comments you may have on the Proposed Development application.

Please find attached scoping letter which details the recent changes to the Proposed Development.

If you have no comments to make, I would be grateful if you would please acknowledge receipt of this correspondence.

Many thanks,

Brian Cronin.

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Brian Cronin

From: Info
Sent: Tuesday 14 May 2024 09:49
To: Brian Cronin
Subject: FW: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm
Attachments: 22-242-FT-EGN-XX-LT-EN-0003 - Drehid scoping letter.pdf

Kind Regards,
Emma

From: Defence Property Management Planning <PropertyManagementPlanning@defence.ie>
Sent: Monday, May 13, 2024 12:54 PM
To: Info <info@ftco.ie>
Cc: Gillian Holden (Defence) <Gillian.Holden@defence.ie>; Sarah Kelly (Defence) <Sarah.Kelly@defence.ie>
Subject: FW: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

Dear Mr. Cronin,

The Department of Defence wished to acknowledge receipt of your e-mail below re: Drehid Windfarm, County Kildare. We will consult with the relevant Military Authorities and we will revert in due course.

For your records, you may wish to note please note, the e-mail address for all planning relating correspondence to the Dept. of Defence is propertymanagementplanning@defence.ie

Kind Regards

Don Watchorn

Property Management Branch

An Roinn Cosanta

Department of Defence

Bóthar an Stáisiúin, An Droichead Nua, Contae Chill Dara, W12 AD93.

Station Road, Newbridge, Co.Kildare, W12 AD93.

From: Info <info@ftco.ie>
Sent: Monday 13 May 2024 09:57
Subject: North Kildare Wind Farm Limited's intended application for planning permission for development of proposed wind farm

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Dear Sir/Madam,

North Kildare Wind Farm Limited intends to apply to An Bord Pleanála for planning permission for the development of a proposed wind farm; and a separate planning permission for a substation which will facilitate connection of the wind farm to the national grid. We, Fehily Timoney and Company, are acting as the Agent for North Kildare Wind Farm Ltd, assisting them in making their planning application.

We have engaged with you in the past as part of pre-application consultations regarding a previous iteration of this Proposed Development. That iteration of the Proposed Development had been initially consented by An Bord Pleanála in 2020 following an appeal against Kildare County Council's decision (ABP Ref. 306500-20). However, we have made some changes to the layout and method of connection to the national grid and as such, we are now seeking planning consent for a slightly revised Proposed Development. Therefore, we are consulting with you to advise of the changes to the previously considered development proposal. We would be interested in receiving any opinions, further information or comments you may have on the Proposed Development application.

Please find attached scoping letter which details the recent changes to the Proposed Development.

If you have no comments to make, I would be grateful if you would please acknowledge receipt of this correspondence.

Many thanks,

Brian Cronin.

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