

Appendix B

Consultation

Appendix B1: Correspondence with ABP

Appendix B2: Scoping Report & Responses

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Appendix B6: Letter of Determination

Appendix B7: Public Information Notices

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APPENDIX B1

Correspondence with ABP



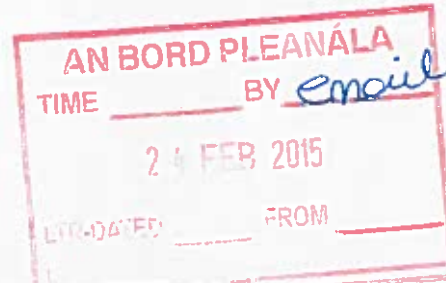
Element Power Ireland Developments Limited
Unit C,
Building 4200
Cork Airport Business Park
Cork
Ireland

T +353 (21) 2427786
F + 353 (21) 2380187
E info@elpower.com

www.elpower.com

24th February 2015

Sinead McInerney
Executive Officer
An Bord Pleanála
64 Marlboro St
Dublin 2



Re: 09.PC0186 Proposed wind farm consisting of up to 55 Turbines in North County Kildare and County Offaly and South County Meath

Dear Sinead

Following receipt of the written record of the recent meeting between Kildare County Council and An Bord Pleanála, we have the following comments:

- On page 3 there is a reference to ESB Networks, it is Eirgrid who determine the grid connection point
- The reference to the requirement for planning permission being required by ESB Networks for wind farm routes is not the correct interpretation
- Clarification on the grid connection point is still to be clarified with Eirgrid and therefore the route cannot be finalised, as discussed in the meeting two routes are being assessed in the EIS although only one of them will be built
- On page 4 we note that the record of meeting refers to 38kV voltage, please note that the current voltage for the cables between the turbines and wind farm substation are currently being designed as 33kV cables.

We now formally request that the Pre-Application Consultation Process is completed and that An Bord Pleanála follow with a determination on this project.

Please do not hesitate to contact me should you require any further information.

Regards,

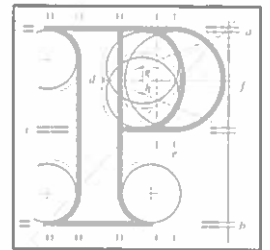
A handwritten signature in blue ink, appearing to read "Kevin O'Donovan".

Kevin O'Donovan

Our Ref: 09.PC0186
P.A.Reg.Ref:

Your Ref:

An Bord Pleanála



County Manager
Meath County Council
County Hall
Navan
County Meath

31st March 2015

**Re: Proposed Wind Farm consisting of up to 47 Turbines in
North County Kildare and South County Meath**

Dear Sir/Madam,

I have been asked by An Bord Pleanála to refer further to the above mentioned pre-application consultation. Please be advised that following consideration of the issues raised during the consultation process the Board is of the opinion that the proposed development is considered to fall within Class 1, Energy Infrastructure, Seventh Schedule and within the terms of section 37A(2)(a) and (b) of the Planning and Development Act, 2000 as amended. Accordingly, the Board decided that the proposed development would be strategic infrastructure within the meaning of section 37A of the Act. Any application for permission for the proposed development must therefore be made directly to An Bord Pleanála under section 37E of the Act.

A copy of the documentation relating to the Board's pre-application file is enclosed for your information including a copy of the written record of the pre-application consultation meetings between An Bord Pleanála and the prospective applicant and An Bord Pleanála and Kildare County Council. A copy of the pre-application consultation file can be made available for public inspection at this stage and must be associated with any application file documentation when such an application is made. In this regard please note that the Board has directed the prospective applicant to include a statement in the public notices of any planning application indicating that the application will be made available for public inspection at the offices of the local authority (as well as the offices of the Board) and on a stand alone website. The Board would therefore be obliged if you could make the necessary arrangements in this regard following receipt of the copies of any application documentation from the prospective applicant. Please note that the public will have the right to make submissions/ observations on the application **only** to An Bord Pleanála and within a time limit which will be specified in the public notices (copies of same will accompany the application documentation) and the public should be alerted to this fact when inspecting the file. It is the Board's intention that all of the application documentation will remain available for public inspection during the currency of the application.

The Board will also separately communicate with you when any application is lodged indicating the date by which the planning authority may lodge its report on the application under section 37(E)(4) of the Act.


Thank you for your co-operation in this matter.

Information is contained overleaf in relation to challenges to the validity of a decision of An Bord Pleanála under the provisions of the Planning and Development Act, 2000, as amended.

If you have any queries in relation to the matter please contact the undersigned officer of the Board.

Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,



Sinead McInerney
Executive Officer
Direct Line:01-8737295

Encls.

ADHOC/PC0186/11

Judicial review of An Bord Pleanála decisions under the provisions of the Planning and Development Act, 2000, as amended

A person wishing to challenge the validity of a Board decision may do so by way of judicial review only. Sections 50, 50A and 50B of the Planning and Development Act 2000 (as substituted by section 13 of the Planning and Development (Strategic Infrastructure) Act 2006, as amended/substituted by sections 32 and 33 of the Planning and Development (Amendment) Act 2010 and as amended by sections 20 and 21 of the Environment (Miscellaneous Provisions) Act 2011) contain provisions in relation to challenges to the validity of a decision of the Board.

The validity of a decision taken by the Board may only be questioned by making an application for judicial review under Order 84 of The Rules of the Superior Courts (S.I. No. 15 of 1986). Sub-section 50(6) of the Planning and Development Act 2000 requires that subject to any extension to the time period which may be allowed by the High Court in accordance with subsection 50(8), any application for judicial review must be made within 8 weeks of the decision of the Board. It should be noted that any challenge taken under section 50 may question only the validity of the decision and the Courts do not adjudicate on the merits of the development from the perspectives of the proper planning and sustainable development of the area and/or effects on the environment. Section 50A states that leave for judicial review shall not be granted unless the Court is satisfied that there are substantial grounds for contending that the decision is invalid or ought to be quashed and that the applicant has a sufficient interest in the matter which is the subject of the application or in cases involving environmental impact assessment is a body complying with specified criteria.

Section 50B contains provisions in relation to the cost of judicial review proceedings in the High Court relating to specified types of development (including proceedings relating to decisions or actions pursuant to a law of the state that gives effect to the public participation and access to justice provisions of Council Directive 85/337/EEC i.e. the EIA Directive and to the provisions of Directive 2001/12/EC i.e. Directive on the assessment of the effects on the environment of certain plans and programmes). The general provision contained in section 50B is that in such cases each party shall bear its own costs. The Court however may award costs against any party in specified circumstances. There is also provision for the Court to award the costs of proceedings or a portion of such costs to an applicant against a respondent or notice party where relief is obtained to the extent that the action or omission of the respondent or notice party contributed to the relief being obtained.

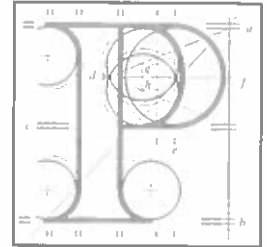
General information on judicial review procedures is contained on the following website, www.citizensinformation.ie.

Disclaimer: The above is intended for information purposes. It does not purport to be a legally binding interpretation of the relevant provisions and it would be advisable for persons contemplating legal action to seek legal advice.

Our Ref: 09.PC0186
P.A.Reg.Ref:

Your Ref:

An Bord Pleanála



County Manager
Kildare County Council
Áras Chill Dara
Devoy Park
Naas
County Kildare

31st March 2015

**Re: Proposed Wind Farm consisting of up to 47 Turbines in
North County Kildare and South County Meath**

Dear Sir/Madam,

I have been asked by An Bord Pleanála to refer further to the above mentioned pre-application consultation. Please be advised that following consideration of the issues raised during the consultation process the Board is of the opinion that the proposed development is considered to fall within Class 1, Energy Infrastructure, Seventh Schedule and within the terms of section 37A(2)(a) and (b) of the Planning and Development Act, 2000 as amended. Accordingly, the Board decided that the proposed development would be strategic infrastructure within the meaning of section 37A of the Act. Any application for permission for the proposed development must therefore be made directly to An Bord Pleanála under section 37E of the Act.

A copy of the documentation relating to the Board's pre-application file is enclosed for your information including a copy of the written record of the pre-application consultation meetings between An Bord Pleanála and the prospective applicant and An Bord Pleanála and Kildare County Council. A copy of the pre-application consultation file can be made available for public inspection at this stage and must be associated with any application file documentation when such an application is made. In this regard please note that the Board has directed the prospective applicant to include a statement in the public notices of any planning application indicating that the application will be made available for public inspection at the offices of the local authority (as well as the offices of the Board) and on a stand alone website. The Board would therefore be obliged if you could make the necessary arrangements in this regard following receipt of the copies of any application documentation from the prospective applicant. Please note that the public will have the right to make submissions/ observations on the application **only** to An Bord Pleanála and within a time limit which will be specified in the public notices (copies of same will accompany the application documentation) and the public should be alerted to this fact when inspecting the file. It is the Board's intention that all of the application documentation will remain available for public inspection during the currency of the application.

The Board will also separately communicate with you when any application is lodged indicating the date by which the planning authority may lodge its report on the application under section 37(E)(4) of the Act.

Thank you for your co-operation in this matter.

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If you have any queries in relation to the matter please contact the undersigned officer of the Board.

Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,



Sinead McInerney
Executive Officer
Direct Line:01-8737295

Encls.

ADHOC/PC0186/11

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The validity of a decision taken by the Board may only be questioned by making an application for judicial review under Order 84 of The Rules of the Superior Courts (S.I. No. 15 of 1986). Sub-section 50(6) of the Planning and Development Act 2000 requires that subject to any extension to the time period which may be allowed by the High Court in accordance with subsection 50(8), any application for judicial review must be made within 8 weeks of the decision of the Board. It should be noted that any challenge taken under section 50 may question only the validity of the decision and the Courts do not adjudicate on the merits of the development from the perspectives of the proper planning and sustainable development of the area and/or effects on the environment. Section 50A states that leave for judicial review shall not be granted unless the Court is satisfied that there are substantial grounds for contending that the decision is invalid or ought to be quashed and that the applicant has a sufficient interest in the matter which is the subject of the application or in cases involving environmental impact assessment is a body complying with specified criteria.

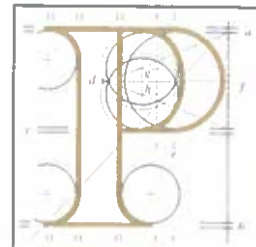
Section 50B contains provisions in relation to the cost of judicial review proceedings in the High Court relating to specified types of development (including proceedings relating to decisions or actions pursuant to a law of the state that gives effect to the public participation and access to justice provisions of Council Directive 85/337/EEC i.e. the EIA Directive and to the provisions of Directive 2001/12/EC i.e. Directive on the assessment of the effects on the environment of certain plans and programmes). The general provision contained in section 50B is that in such cases each party shall bear its own costs. The Court however may award costs against any party in specified circumstances. There is also provision for the Court to award the costs of proceedings or a portion of such costs to an applicant against a respondent or notice party where relief is obtained to the extent that the action or omission of the respondent or notice party contributed to the relief being obtained.

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Our Ref: 09.PC0186
P.A.Reg.Ref:

An Bord Pleanála



Your Ref:

Kevin O'Donovan
Element Power Ireland Limited
Unit 4200
Cork Airport Business Park
Cork

31st March 2015

**Re: Proposed Wind Farm consisting of up to 47 Turbines in
North County Kildare and South County Meath**

Dear Sir,

Please be advised that following consultations under section 37B of the Planning and Development Act, 2000 as amended, the Board hereby serves notice under section 37B(4)(a) that it is of the opinion that the proposed development is considered to fall within Class 1, Energy Infrastructure, Seventh Schedule, and within the terms of section 37A(2)(a) and (b) of the Planning and Development Act, 2000, as amended. Accordingly, the Board has decided that the proposed development would be strategic infrastructure within the meaning of section 37A of the Planning and Development Act, 2000, as amended. Any application for permission for the proposed development must therefore be made directly to An Bord Pleanála under section 37E of the Act.

Please also be informed that the Board considers that the pre-application consultation process in respect of this proposed development is now closed.

Attached is a list of prescribed bodies to be notified of the application for the proposed development.

In accordance with section 146(5) of the Planning and Development Act, 2000 as amended, the Board will make available for inspection and purchase at its offices the documents relating to the decision within 3 working days following its decision. This information is normally made available on the list of decided cases on the website on the Wednesday following the week in which the decision is made.

The attachment contains information in relation to challenges to the validity of a decision of An Bord Pleanála under the provisions of the Planning and Development Act, 2000, as amended.

If you have any queries in relation to the matter please contact the undersigned officer of the Board. Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

Sinead McInerney
Executive Officer
Direct Line: 01-8737295

ADHOC/PC0186/10

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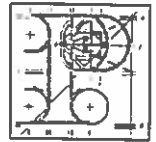
Section 50B contains provisions in relation to the cost of judicial review proceedings in the High Court relating to specified types of development (including proceedings relating to decisions or actions pursuant to a law of the state that gives effect to the public participation and access to justice provisions of Council Directive 85/337/EEC i.e. the EIA Directive and to the provisions of Directive 2001/12/EC i.e. Directive on the assessment of the effects on the environment of certain plans and programmes). The general provision contained in section 50B is that in such cases each party shall bear its own costs. The Court however may award costs against any party in specified circumstances. There is also provision for the Court to award the costs of proceedings or a portion of such costs to an applicant against a respondent or notice party where relief is obtained to the extent that the action or omission of the respondent or notice party contributed to the relief being obtained.

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List of Prescribed Bodies

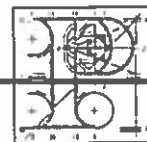
An Bord Pleanála



Case Reference/Description	09.PC0186 Proposed Wind Farm consisting of up to 47 Turbines in North County Kildare and South County Meath
Case Type:	Section 37E of the Planning and Development Act, 2000 as amended

The prospective applicant is advised to have regard to article 213 of the Planning and Development Regulations, 2001, as amended, and the following is the list of prescribed bodies to be notified of the application:

- Minister for the Environment, Community and Local Government
- Minister for Arts, Heritage and the Gaeltacht
- Minister for Communications, Energy and Natural Resources
- Kildare County Council
- Meath County Council
- National Roads Authority
- Heritage Council
- An Taisce
- An Chomhairle Ealaíon
- Fáilte Ireland
- Inland Fisheries Ireland
- Waterways Ireland
- Irish Aviation Authority
- Commission for Energy Regulation
- Irish Rail
- Railway Safety Commission
- Health Service Executive
- Offaly County Council
- Irish Water



List of Prescribed Bodies

Other bodies that should be notified of the application include:

- (i) Geological Survey of Ireland
- (ii) Department of Defence
- (iii) Commissioners of Public Works

APPENDIX B2

Scoping Report & Responses



MAIGHNE WIND FARM

ENVIRONMENTAL IMPACT STATEMENT - SCOPING REPORT

OCTOBER 2014



MAIGHNE WIND FARM

ENVIRONMENTAL IMPACT STATEMENT - SCOPING REPORT

User is Responsible for Checking the Revision Status of This Document

Rev. Nr.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date:
1	Issue for Consultation	DMC/MT	TPR	TPR	30.10.2014

Client: Element Power Ireland Ltd.

Keywords: Maighne, Wind Farm, SID, An Bord Pleanála, Scoping, Environmental Impact Statement

Abstract: This is a scoping report prepared for a proposed wind farm located within north County Kildare, east County Offaly and south County Meath. The purpose of the scoping report is to identify the content and extent of the information to be provided in the Environmental Impact Statement for the proposed project.

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1 INTRODUCTION

1.1 General

1.1.1 Element Power

Element Power is a global renewable energy company that develops, acquires, builds and operates utility-scale wind and solar power projects. Element Power is present in 16 countries and has 71 megawatt (MW) of renewable energy generation in operation and approximately 9,000MW of energy generation projects in development.

Element Power Ireland Ltd. has an established track record in wind energy in Ireland, with its Irish team based in Tullamore and Cork. This team has developed 15 wind farms in Counties Clare, Cork, Kerry, Donegal, Limerick, Waterford and Tipperary.

1.1.2 Maighne Wind Farm

Maighne Wind Farm will consist of a maximum of up to 55 wind turbines, with a maximum tip height of up to 169m to be developed and connected to the Irish grid for domestic purposes. The turbines will be spread across a number of dispersed sites and depending on the final assessment could be located in counties Kildare, Offaly and Meath. The exact output cannot be specified at this stage, however, ultimately slightly more or less than 125 MW of electricity will be generated by the wind farm feeding into the Irish National Grid. The electricity generated will be transmitted by a collector system of medium voltage (MV) underground cables to a proposed on-site sub-station. There will be no overhead lines required for the grid connection. The development will also comprise of the construction of new access tracks, the upgrading of existing access tracks, the construction of borrow pits, permanent meteorological mast, ancillary works and temporary construction site compounds.

The grid connection point for the wind farm has not yet been determined. It is expected that the connection point will be agreed with EirGrid in 2015.

1.2 Planning Process for the Proposed Development

1.2.1 Strategic Infrastructure

The Planning and Development Act 2000ⁱ was amended in 2006ⁱⁱ to require applications for planning permission for major infrastructure projects to be made directly to An Bord Pleanála rather than to the local planning authority, as would have previously been the case.

In order to fall within the Strategic Infrastructure provisions of the 2000 Act, as amended, a proposed development must be, inter alia, of a class specified in the Seventh Schedule to the Act.

Paragraph 1 of the Seventh Schedule, as amended, specifies, inter alia, the following class of development: "An installation for the harnessing of wind power for energy production (a wind farm) with more than 25 turbines or having a total output greater than 50 megawatts."

The conditions in Section 37A (2) are that:

37A (2)... "following consultations under Section 37B, the Board serves on the prospective applicant a notice in writing under that section stating that, in the opinion of the Board, the proposed development would, if carried out, fall within one or more of the following paragraphs, namely—

(a) the development would be of strategic economic or social importance to the State or the region in which it would be situate,

(b) the development would contribute substantially to the fulfilment of any of the objectives in the National Spatial Strategy or in any regional planning guidelines in force in respect of the area or areas in which it would be situate,

(c) the development would have a significant effect on the area of more than one planning authority.”

In October 2014, Element Power Ireland Ltd. wrote to An Bord Pleanála to formally request a pre-application consultation meeting under section 37B of the Planning and Development Act 2000, as amended, in respect of a proposed wind farm in counties Kildare, Offaly and Meath.

Under Section 37E of the Act, a planning application for a development which comes within the scope of Section 37A must be accompanied by an Environmental Impact Statement (EIS). Fehily Timoney & Company has been commissioned to prepare the EIS. This scoping document has been prepared to inform the preparation of the EIS.

Screening will be undertaken to determine if an appropriate assessment of Maighne Wind Farm is required. If the screening assessment indicates that an appropriate assessment is required, a Natura Impact Statement will be prepared and submitted to accompany the planning application and EIS.

1.3 Environmental Impact Assessment and the Function of the EIS

The European Union Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, requires member states to ensure that a competent authority carries out an appraisal of the environmental impacts of certain types of project, as listed in the Directive, prior to development consent being given for the project. Maighne Wind Farm is such a project. The environmental impact assessment of Maighne Wind Farm will be undertaken by An Bord Pleanála.

The EIS, to be submitted with the planning application for Maighne Wind Farm, will provide information on the possible environmental impacts of the project and propose mitigation measures to reduce the residual impacts. Thus the function of the EIS is to provide information for the environmental impact assessment.

1.4 Purpose of Scoping

The purpose of the EIS 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 EIS, 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 EIS.

There is provision in the legislation for formal scoping of an EIS. The person preparing the EIS can request the competent authority, in this case An Bord Pleanála, to provide a written opinion on the information to be contained in the EIS. The applicant must provide sufficient information on the project to allow informed opinions to be given. The competent authority can request additional information from the applicant.

When sufficient information has been obtained, the competent authority seeks a written opinion from the statutory consultees. Upon receipt of these opinions, the competent authority issues its formal opinion to the applicant. Giving a formal scoping opinion does not preclude the competent authority from requiring further information at a later stage.

The alternative to formal scoping is informal scoping. This can be undertaken by the authors of the EIS by direct consultation with the relevant statutory and non-statutory consultees. Informal scoping is proposed for the EIS for Maighne Wind Farm.

1.5 Consultation

An extensive consultation process will be undertaken by Element Power and the EIS team.

Public consultation relating to potential wind farm development in the areas proposed for this project have been ongoing for over a year at this stage. Two public information events have been held in the area, one in Derrinturn, Co. Kildare on 11 July 2013 and another in Clonbullogue Community Hall, Co. Offaly on 24 July 2013. These public information events introduced the public to the proposed wind energy development in the areas and provided details of the study areas being considered in the region as part of the Greenwire project, as well as providing general details in relation to wind energy development.

A second, more detailed public information event will be held on 18 November 2014. Details of the proposed development including information leaflets, site layout maps and a number of photomontages will be available for public examination and representatives of the developer (Element Power Ireland Ltd.) and the consultants who are preparing the EIS (Fehily Timoney & Company) will be in attendance to answer any queries arising. This information event will also confirm that the proposed Maighne Wind Farm is being used for supplying power to the Irish electricity grid.

Element Power has also set up a Community Liaison Team, who are engaged in ongoing daily/weekly consultation with the community based stakeholders. Numerous meetings have been held with individuals as well as voluntary groups, business groups and community groups in the area. Details of the proposed development have been provided, along with details on the proposed near neighbour scheme and community benefit scheme.

This scoping document will be sent to the organisations listed below:

- An Bord Pleanála
- Commission for Energy Regulation
- Department of Arts, Heritage and Gaeltacht
- Department of Communications, Energy and Natural Resources
- Department of Defence
- Department Environment, Community and Local Government
- Department of Transport, Tourism & Sport
- Department of Agriculture, Food and the Marine
- Health Service Executive
- Inland Fisheries Ireland – Eastern River Basin District
- Inland Fisheries Ireland – South Eastern River Basin District
- Irish Aviation Authority
- Iarnród Éireann
- Kildare County Council
- Meath County Council
- Offaly County Council
- Kildare National Roads Office
- National Parks and Wildlife Service
- Waterways Ireland
- Irish Water
- Southern and Eastern Regional Assembly
- The Border, Midland and Western Regional Assembly
- Kildare Local Enterprise Office
- Offaly Local Enterprise Office
- Meath Local Enterprise Office
-
- Environmental Protection Agency
- National Roads Authority
- National Transport Authority (Bus Éireann)
- Heritage Council
- Fáilte Ireland
- An Chomhairle Ealaíon (The Arts Council)
- Office of Public Works
- Geological Survey of Ireland
- Teagasc
- Sustainable Energy Authority of Ireland

- Irish Sports Council
- Health and Safety Authority
- Údarás na Gaeltachta
- Railway Safety Commission

Environmental Non-Government Organisations (NGOs) including:

- An Taisce
- Birdwatch Ireland
- Irish Peatland Conservation Council
- Irish Wildlife Trust
- Bat Conservation Ireland
- East Coast and Midlands Tourism

Comments on the scope of the EIS can be submitted by email to maighnewindfarmscoping@ftco.ie.

2 PROJECT DESCRIPTION

It is proposed that there will be up to 55 wind turbines in counties Kildare, Offaly and Meath generating circa 125MW. Element Power Ireland has identified and secured agreement with a number of private landowners for the development of wind turbines on suitable lands. The preliminary location of the preferred turbine locations is shown in Figure 2.1 overleaf.

The wind farm will have a defined planning boundary which will include not only the turbines themselves but also ancillary infrastructure such as internal access roads (new and upgrade of existing), on-site medium voltage (MV) underground cabling, an on-site sub-station, temporary construction site compounds, permanent met mast and borrow pits.

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 advance of 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. Any works required to the public road network to facilitate turbine delivery will also be carried out.

It is anticipated that each turbine will take 3 to 4 days to erect, depending on weather conditions at the site, with two cranes set up at each turbine (one main crane and a tailing/ support crane). Finally, the turbines will be commissioned and tested.

It is anticipated that the construction and commissioning of the wind farm will take approximately 21 months.

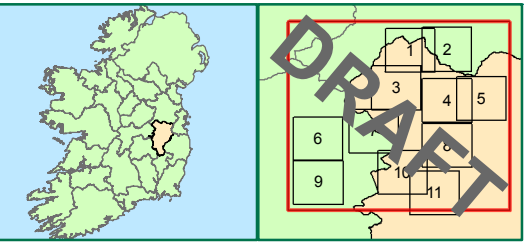
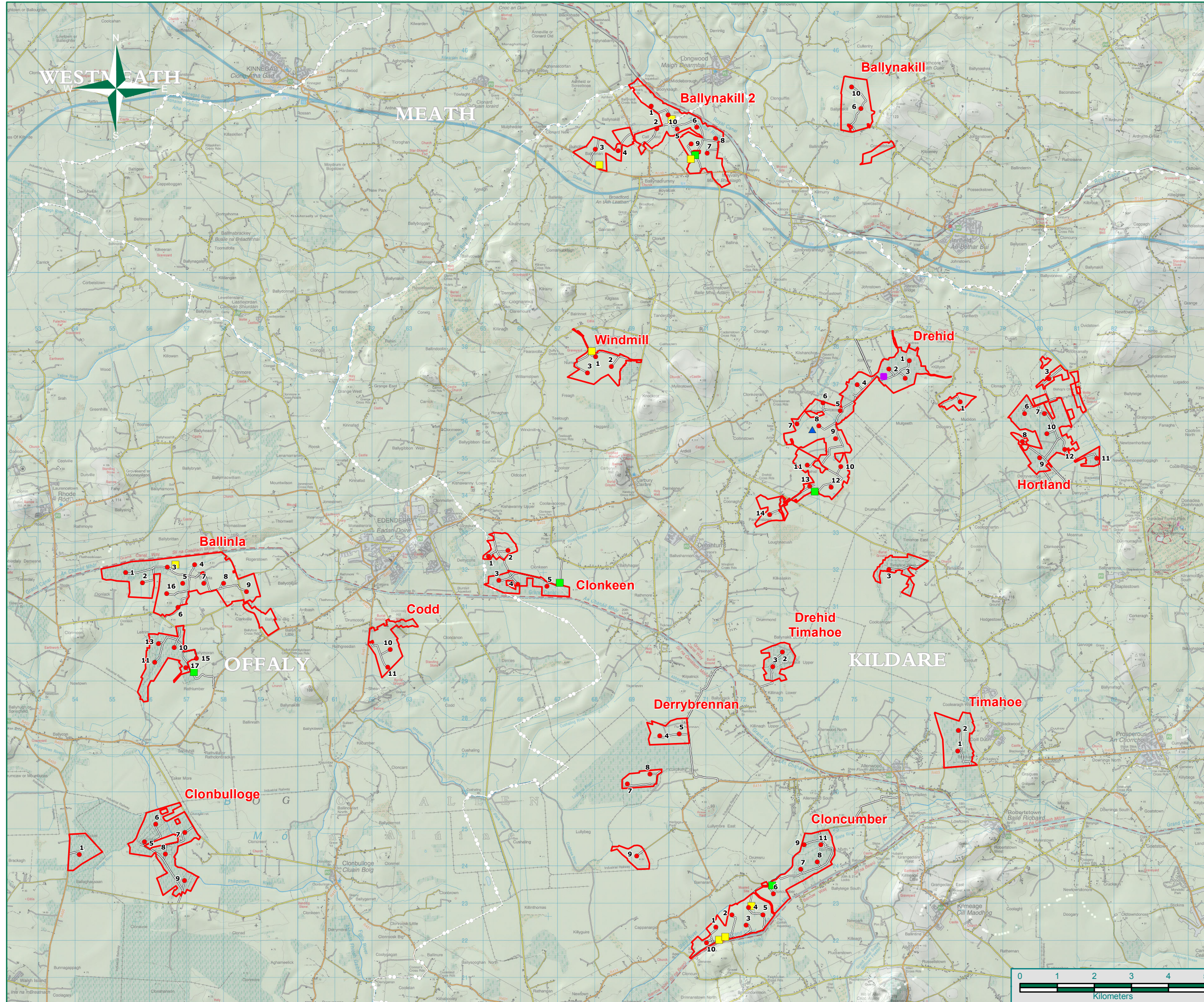
2.1 Turbine Technology

The turbine technology proposed for Maighne Wind Farm is designed for optimal performance in the Midlands wind regime and these 2.5-3.5MW wind turbines will have a blade tip height of up to 169m. As the Maighne Wind Farm is located in the flatter, lower wind speed areas of the Irish Midlands, turbines with larger rotor diameters will catch more wind than traditional and less efficient models.

A description of the turbine technology will be provided in the EIS including details on the blades, tower, transformer, colour etc.

2.2 Decommissioning Phase

The expected life of the turbines will be up to 30 years. After this time, the developer will make a decision whether to replace or decommission the turbines. Decommissioning generally consists of disassembling of the turbines by cranes, covering the foundations, hardstandings and access tracks, i.e. leave in-situ, and allowing the site to re-vegetate with indigenous species. A preliminary decommissioning plan will be provided in the EIS. If it is decided to replace the turbines, a new planning application will be made at that time.



Legend

- Turbine Locations
- Site Boundaries
- Preferred Substation Footprint
- Turbine Locations
- Proposed Borrow Pit Locations
- ▲ Proposed Met Mast Locations
- Proposed Compound Location
- Indicative Access Tracks

Date	28/10/2014	
Name Of Client		
Element Power		
Name Of Job	Maighne Wind Farm	
Title Of Figure	Site Layout Overview (Maighne)	
Scale Used	1:100,000 @ A3	
Figure No.	2.1.	Rev A

**CONSULTANTS IN
ENGINEERING &
ENVIRONMENTAL
SCIENCES**

Core House, Pouladuff Rd, Cork, Ireland.
T: +353-21-4964133, F: +353-21-4464

Unit 16 J5 Plaza, North Park Business Park, Dublin 11, Ireland.
T: +353-1-6583500, F: +353-1-6583501

W: www.fehilytimoney.ie, E: info@ftco.ie

2.3 Turbine Delivery

The turbines will be assembled on site from a number of components including large or long elements, such as the rotor blades, each of which will be delivered to site by special transport vehicles. The delivery route from the port, into which the components are shipped, to the wind farm site will use the motorway and national primary route network as much as possible. It is anticipated that the turbines will be transferred to the site via the M4, regional and local roads. The turbine component delivery route will be described in the EIS.

3 STRUCTURE AND SCOPE OF THE EIS

3.1 Contents of the EIS - Statutory Requirements

The EIS must be prepared in accordance with the Planning and Development Regulations 2001, as amended, which set out the contents of an EIS.

Schedule 6 of the Regulations specifies the information to be contained in an EIS, including the following:

*"A description of the proposed development comprising information on the site, design and size of the proposed development,
A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects,
The data required to identify and assess the main effects which the proposed development is likely to have on the environment, and
An outline of the main alternatives studied by the developer and an indication of the main reasons for his or her choice, taking into account the effects on the environment."*

Information is also required on the following matters:

*"A description of the physical characteristics of the whole proposed development and the land-use requirements during the construction and operational phases,
A description of the main characteristics of the production processes, for instance, nature and quantity of the materials used, and
An estimate, by type and quantity, of expected residues and emissions (including water, air and soil pollution, noise, vibration, light, heat and radiation) resulting from the operation of the proposed development."*

Aspects of the environment likely to be significantly affected by the proposed development are also to be described, including in particular:

*"Human beings, fauna and flora,
Soil, water, air, climatic factors and the landscape,
Material assets, including the architectural and archaeological heritage, and the cultural heritage, and
The inter-relationship between the above factors."*

A description is required of the likely significant effects (including direct, indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative) of the proposed development on the environment resulting from:

*"The existence of the proposed development,
The use of natural resources, and
The emission of pollutants, the creation of nuisances and the elimination of waste"*

A description is required of the forecasting methods used to assess the effects on the environment. A summary in non-technical language of this information is also to be included.

Finally, any difficulties encountered by the developer in compiling the required information should be indicated.

3.2 EIS Methodology

3.2.1 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)', published in 2003 and 'Guidelines on the Information to be contained in Environmental Impact Statements' published in 2002. The EIS team will have regard to these guidelines in the preparation of the EIS. 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 (IWEA, 2012) and the 'Wind Energy Development Guidelines' published by the Department of Environment, Heritage and Local Government (DoEHLG, 2006).

3.2.2 Mitigation Measures

The central purpose of the EIS is to identify potentially significant adverse impacts at the pre-application stage and to propose measures to mitigate these impacts. The primary mitigation will be by avoidance. Where potential adverse impacts are identified, the element of Maighne Wind Farm giving rise to the adverse impact will be modified if feasible, to avoid the impact. For example, where feasible, turbines will be moved or cables will be rerouted. Other mitigation measures will include, if feasible, reducing the area affected by construction activities, or changing the construction method, for example by doing a trenchless crossing of a road, railway or river. If impacts cannot be avoided, measures will be incorporated into the project to reduce the adverse impacts to as low as is practicable. Where adverse impacts cannot be prevented, measures will be taken to restore the environment to an approximation of its previous condition or to a new equilibrium.

3.2.3 EIS Structure

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

Using this structure there is a separate chapter for each topic, e.g. air and climate, ecology, 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 extensive scale of Maighne Wind Farm and conscious of the need to ensure that the EIS is readily accessible to the general public as well as the statutory authorities, the EIS team has proposed to structure the EIS as described below.

The EIS will have a number of chapters, including:

- Non-Technical Summary
- Introduction
- Description of the Proposed Development
- Policy
- EIS Scoping, Consultation and Key Issues
- Air and Climate Change
- Noise and Vibration
- Ecology
- Soils and Geology
- Hydrology
- Water Quality
- Human Environment
- Shadow Flicker
- Traffic and Transportation
- Landscape and Visual
- Archaeology, Architecture and Cultural Heritage
- Telecommunications and Aviation
- Interactions of the Foregoing

The structure proposed for the EIS is as follows:

- Volume 1 – Non-Technical Summary (including figures)
- Volume 2 - Main EIS
- Volume 2a - Figures associated with the Main EIS chapters
- Volume 3 – Appendices for the EIS
- Volume 4 - Landscape and Visual Maps and Photomontages

3.2.3.1 EIS Draft Table of Contents

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

4 ENVIRONMENTAL ISSUES TO BE ADDRESSED IN THE EIS

4.1 Introduction

The EPA Advice Notes provide guidance on the topics which would usually be addressed when preparing an EIS 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 EIS will have regard to the guidance provided on the issues to be addressed for a Project Type 33.

The EIS will also have regard to environmental impact assessments, which have been undertaken recently by An Bord Pleanála for wind farm projects.

4.2 Background to the Project

The EIS will summarise the need for Maighne Wind Farm.

4.3 Alternatives Considered

The alternatives, which were considered, when developing the overall configuration of Maighne Wind Farm, will be described. The technology options for the project will be outlined.

The principal 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 form an appendix to this section 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
 - environmental conservation designations
 - landscape designations
 - established and future land use
 - ease of access, etc.
- *Access and cabling* – 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. Details of alternative cable routes considered will also be outlined. This will include information on the availability of existing tracks, suitable ground conditions, terrain, local road infrastructure etc.

The reasons, including environmental considerations, for choosing the proposed alternatives will be explained.

4.4 Scheme Description

This EIS will describe the existing environment, potential impacts, mitigation measures and residual impacts for each specific environmental topic.

The proposed routes for the underground cables to be laid along the public roads between the wind farm sites/ clusters and the sub-station will be included in the EIS, with information provided on trench-details and the construction methodology to be utilised.

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

4.5 Construction Activities

The wind farm site will have a defined planning boundary to include not only the turbines and hardstandings but also ancillary infrastructure such as site access roads, underground cabling, on-site sub-station, drainage, temporary site compounds including parking and borrow pits where appropriate. Details on all of these elements will be provided within the EIS.

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

- Indicative construction programme
- Construction sequence and methodology
- Drainage control measures
- Temporary site facilities
- Site entrance
- Site preparation works
- New and upgrade of existing access roads
- Borrow pits and reinstatement works
- Bridge/ culvert construction
- Substation
- Cable installation on site
- Turbine foundation and associated hard-standing 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.

4.6 Planning and Policy Context

The Maighne Wind Farm project 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 Maighne Wind Farm will be addressed with reference to relevant county development plans and other plans or policies, regional planning guidelines and Government and other policy statements.

4.7 Consultation Programme

Stakeholders, including national and local regulatory bodies, Government agencies, environmental non-governmental organisations (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 EIS of the bodies consulted and a summary will be provided of the queries and concerns expressed.

4.8 Human Beings

4.8.1 Aspects to be Addressed

Health and Safety

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

Land Use, Recreation, Amenity and Tourism

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

Socio-Economics

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

Material Assets

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

4.8.2 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.

The proposed wind energy development will be designed, constructed, operated and decommissioned in accordance with the following:

- Safety, Health & Welfare at Work (Construction) Regulations 2013
- Safety, Health & Welfare at Work Act 2005
- Safety, Health & Welfare at Work (General Applications) Regulations 2007

A Preliminary Safety and Health Management Plan will be prepared and included in the EIS.

Land Use, Recreation, Amenity and Tourism

The main land uses in the area, which could potentially be affected by Maighne 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, tourism 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 Maighne 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.

Socio-Economics

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

Material Assets

The physical infrastructure, which could potentially be affected by Maighne Wind Farm, 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.

4.8.3 Existing Environment

Health and Safety

All non-wind farm related dwellings will be a minimum of 500 m from any proposed turbine. The general receiving environment is rural and is concentrated in fringe areas around cutaway bogs and within pastoral farmland. The Maighne Wind Farm site is located between the towns and villages of; Longwood in County Meath, Edenderry and Daingean in County Offaly, and Kildare Town and Prosperous in County Kildare.

Land Use, Recreation, Amenity and Tourism

The general receiving environment is rural and is concentrated in fringe areas around cutaway bogs and within pastoral farmland. The Maighne Wind Farm site is located between the towns of; Longwood in County Meath, Daingean in County Offaly, Kildare Town, and Prosperous also in County Kildare. All of the towns and villages in the surrounding areas have sports, recreational and community facilities.

Socio-Economics

County Kildare experienced population growth between 2006 and 2011. The population of County Kildare was 186,335 in 2006 and increased by 12.9% to 210,312 in 2011ⁱⁱⁱ. The 2011 population of the County comprises 104,658 males and 105,654 females. Approximately 39% of the workers in the county work outside of this area^v. The largest industry in the County are commerce and trade, with professional services and manufacturing also key industries in the county. The unemployment rate in 2011 in County Kildare was circa 1.1% lower than the State as a whole^{vi}. On average, approximately 17,044 people were recorded on the live register at the social welfare offices for Kildare County in the first 9 months of 2014^{viii}.

County Meath experienced population growth between 2006 and 2011. The population of County Meath was 162,831 in 2006 and increased by 13.1% to 184,135 in 2011^{ix}. The 2011 population of the County comprises 91,910 males and 92,225 females. Approximately 44% of the workers in the county work outside of this area. The key industry sectors in the county are commerce and trade professional services and manufacturing.

The unemployment rate in 2011 in County Meath was circa 1% lower than the state as a whole^{xi}. On average, approximately 9,651 people were recorded on the live register at the social welfare offices for Meath County in the first 9 months of 2014^{xii}.

The population of County Offaly was 70,868 in 2006 and increased by 8.2% to 76,687 in 2011^{xiii}. The 2011 population of the County comprises 38,430 males and 38,257 females. Approximately 28% of the workers in the county work outside of this area. The key industry sectors in the County are professional services and commerce and trade. The unemployment rate in 2011 in County Offaly was circa 4% higher than the State as a whole^{xv}. On average, approximately 8,568 people were recorded on the live register at the social welfare offices for Offaly County in the first 9 months of 2014^{xvi}.

Material Assets

The area in which Maighne Wind Farm will be located is well served by motorways and national primary and secondary roads which provide good connections to the main ports. The area has an extensive network of regional and local roads. Power lines at various voltages cross the area and water mains are present in the vicinity of towns and villages.

4.8.4 Potential Impacts

Health and Safety

Maighne Wind Farm is not likely to have a significant impact on human health and safety.

Land Use, Recreation, Amenity and Tourism

The wind farm will require land take for the access tracks, wind turbine 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 on-site cables include full or partial closure of the access roads to the amenities and sports and recreational facilities, while the cables are being installed. There may be disruption to access routes and walking paths, which are adjacent to the rivers, streams and canals being crossed by trenchless means, while the trenchless crossings are being constructed, however any disruption will be mitigated where possible by maintaining access for people throughout, and where this is not possible, in minimising the impact, as well as clearly communicating the timing and scope of works to the local community.

Once Maighne Wind Farm is operational, the potential for negative impact on land use is minimal. Both the construction and operation of the Maighne Wind Farm have the potential to have a negative impact on residential amenity from the construction activities and potentially visual impacts following completion.

Socio-Economics

Maighne Wind Farm will result in lease payments to the landowners, on whose land the turbines will be located. Direct and indirect employment will be created for both the construction and operational phase. There will also be contributions to the economy in the form of taxes and rates.

Element Power proposes to establish a community benefit programme, if Maighne Wind Farm is granted permission. This will fund local projects, educational initiatives and local enterprise, employment and energy projects for nearby communities.

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.

The construction of the cable trenches, predominantly in roads, will physically damage the roads concerned and some roads may require to be completely rebuilt. Importation of materials and equipment for Maighne Wind Farm will increase shipping traffic at the ports being used and increase freight on the motorway, national primary route and regional road network. Construction traffic will also use local, poor quality roads, which could experience structural damage.

Once Maighne Wind Farm is operational, the potential for a negative impact on material assets is minimal.

4.9 Shadow Flicker

4.9.1 Aspects to be Addressed

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

4.9.2 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.

It should be noted that the software does not take account of the type of room(s) the shadow flicker potentially affects and how they might be used at the time that shadow flicker is predicted as this would require an intrusive survey. The level of screening, however, between each turbine and dwelling will be noted.

The following sources of information will be considered in this assessment:

- The design layout of the proposed development.
- Published literature as described below.
- Field assessment of the dwellings in the vicinity of the proposed development.
- A desk-based assessment of the dwellings with planning permission in the vicinity of the proposed development that are not yet constructed.

The scope and methodology for the shadow flicker assessment will be devised in consideration of the following planning, policy and guidance documents:

- Department of the Environment, Heritage and Local Government (DoEHLG, 2006) "Wind Energy Development Planning Guidelines"
- Irish Wind Energy Association (2012) "Best Practice Guidelines for the Irish Wind Energy Industry"
- 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"

We are aware that the DoEHLG Wind Energy Development Planning Guidelines are currently being revised and should these guidelines be finalised in advance of submission of the application, the turbine shadow flicker control system will be modified to meet the planning requirements and guidelines in place.

Cumulative impacts of Maighne Wind Farm and any other third party wind farms within 10 rotor diameters of the site will also be assessed.

4.9.3 Existing Environment

All non-wind farm related dwellings will be a minimum of 500 m from any proposed turbine. The general receiving environment is rural and is concentrated in fringe areas around cutaway bogs and within pastoral farmland. The majority of buildings in the vicinity of the proposed development are residential or farm buildings. The Maighne Wind Farm site is located between the towns of; Longwood in County Meath, Daingean in County Offaly, Kildare Town, and Prosperous also in County Kildare.

4.9.4 Potential Impacts

In times of direct sunshine, and at certain times of the year, wind turbine blades could occasionally cast moving shadows on residences in close proximity to the turbines. These moving shadows of the turbine blades can periodically reduce light to a room causing the light to appear to flicker.

For shadow flicker to occur at a dwelling certain conditions must exist concurrently:

- The sun is shining at a low angle i.e. after dawn or before sunset.
- There is sufficient sunlight to cast shadows i.e. no significant fog, mist or cloud cover.
- The turbine is directly between the sun and the dwelling.
- The dwelling has a window facing in the direction of the wind turbine.
- The wind direction is parallel with the line between the sun, the turbine and the window in question (a condition which means the turbine will be facing the dwelling).
- There is sufficient wind speed that the turbines are operating.
- The dwelling has a direct view of the turbine i.e. no screening (trees, hedges, etc.) or no obscuring features around the receivers which would minimise views of the development, and hence reduce or eliminate the potential for shadow flicker.

All seven conditions outlined above must exist simultaneously for shadow flicker to occur at a dwelling. Shadow flicker does not generally have any effect on health or safety, but could on limited occasions present a brief nuisance effect for some neighbours.

The outputs of the modelling assessment will be used to identify the potential direct and indirect impacts of shadow flicker on dwellings. The model calculates times throughout the year when a turbine, viewed from the window of a building, is in line with the sun, and therefore the potential exists for shadow flicker to occur

The model results for maximum daily shadow flicker are based on the assumption that daylight hours consist of 100% sunshine, no account of screening is taken into consideration, and it has been assumed that every building has a window facing directly onto each turbine, therefore a worst-case scenario is represented.

The closest meteorological station to the proposed Maighne Wind Farm with historical measurements compiled by Met Éireann will be assessed in the EIS to represent the average sunshine per day as recorded over a 30 year period. The actual sunshine (daylight) hours at the proposed development site, and therefore the percentage of time shadow flicker could actually occur, will be determined and this percentage factor will be applied to the predicted maximum amount of annual shadow flicker (100% model output). Although this methodology is considered a more likely scenario, it is still a conservative estimate of the actual shadow flicker at each of these dwellings as it assumes the rotor yaw is always perpendicular to the sun, a window faces directly onto the development and that there is no screening of vegetation.

4.10 Noise and Vibration

4.10.1 Aspects to be Addressed

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

4.10.2 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 that would arise from the construction of the turbine foundations, the erection of the turbines, the excavation of trenches for cables, excavation of borrow pits, and the construction of associated hard standings, access tracks, construction compound(s) and sub-station. Noise from vehicles on local roads and access tracks would also result from the delivery of the turbine components and construction materials, notably aggregates, concrete and steel reinforcement.

This modelling will be completed applying British Standard BS 5228:2009 *Code of Practice for Noise and Vibration Control on Construction and Open Sites* 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 Code of Practice for Noise and Vibration Control on Construction and Open Sites Part 1 Noise
- National Roads Authority (NRA, 2004), Guidelines for the Treatment of Noise and Vibration in National Road Schemes

Operational Noise Assessment Methodology

Predicted operational noise levels will be carried out based in the recommendations of the UK Institute of Acoustics', *A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise* (2013), and compared with noise limits based on those presented in the DoEHLG *Wind Energy Development Planning Guidelines* (2006). We are aware that the latter guidelines are currently being revised and should these guidelines be finalised in advance of submission of the application, any amendments to how the operational noise assessment is undertaken and the limits on which compliance is determined will be modified to meet the planning requirements and guidelines in place. The assessment will be undertaken in line with the relevant adopted guidance at the time of the application submission.

For the purpose of this scoping document we propose the following methodology in line with the current guidelines.

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 Planning Guidelines).

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 LA90 contour using the candidate turbine's rated sound power level.

Baseline Monitoring - Receivers determined within the 35dB LA90 study area will be reviewed for monitoring location suitability. Issues to be considered include accessibility and the surrounding environment (such as areas forested, or exposed to significant noise sources).

Baseline sound level monitoring will be undertaken at selected noise sensitive receivers within the study area and within the project's optioned lands. Monitoring will be carried out in accordance with best practice guidance.

Data Analysis and Limit Derivation - The baseline sound level monitoring data will be correlated with the wind speed and rainfall data 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 guidelines (whichever is applicable to each wind speed):

- 35 - 40 dB LA90 for daytime periods of low background noise levels of less than 30 dB LA90
- 45 dB LA90 for daytime periods of background noise exceeding 30 dB LA90
- 43 dB LA90 for night-time periods
- 5 dB(A) above background noise levels for all periods where applicable.

These noise limits are set with respect to a specific hub height which is standardised to 10m.

Impact Analysis and Mitigation Design - Prediction modelling will be conducted modelling all wind speed sound power levels available for the preferred turbine type to provide a noise prediction curve for each noise sensitive location within the study area. The prediction parameters will be those described in the Institute of Acoustics' ETSU good practice guide^{xvii}. Cumulative noise modelling will also be undertaken to determine sound pressure level contributions from any surrounding wind farms.

4.10.3 Existing 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 majority of buildings in the vicinity of the proposed development are residential or farm buildings.

4.10.4 Potential Impacts

Potential impacts 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 DoEHLG limits, either in their existing format or subject to revised limits following completion of the targeted review of the guidelines.

4.11 Traffic and Transportation

4.11.1 Aspects to be Addressed

The traffic impact assessment will address the traffic impacts on the road network from the construction and operation of Maighne 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.

4.11.2 Assessment Methodology

A traffic impact assessment will be conducted in accordance with the National Roads Authority (NRA) Traffic and Transport Assessment (TTA) Guidelines, September 2007. Data collected from road traffic surveys along the delivery route will be used in the assessment.

An Auto Track vehicle swept path analysis exercise 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.

4.11.3 Existing Environment

The area in which Maighne Wind Farm will be located is well served by motorways and national primary and secondary roads which provide good connections to the main ports and sources of construction materials. The area has an extensive network of regional and local roads. The Maighne Wind Farm site is located between the towns of; Longwood in County Meath, Daingean in County Offaly and Kildare Town and the village of Prosperous in County Kildare.

4.11.4 Potential Impacts

The greatest potential for traffic impact from Maighne 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 wind farm site will use the motorways and national secondary route network as much as possible. These large loads have the potential to cause disruption to local road users. Modifications may also be required to the existing local road network to cater for the delivery of the oversized loads.

Access to the proposed turbines will be via existing access tracks where possible or alternatively via new track routes. To minimise land take these tracks will be strategically planned to allow not only access from the public road but also a connection between some turbines.

Stone aggregate will be required for the upgrading of existing tracks and construction of new site roads as well as the construction of turbine bases and hardstands. All of these activities have the potential to generate significant local traffic numbers, unless considerable volumes of suitable material can be sourced on site.

The nature of the local road network in the vicinity of the wind farm site is such that widening/improvements works may be required to accommodate heavy goods vehicle (HGV's) 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.

Installation of the cables will require partial or full road closures and traffic may have to use alternative routes. Where the cable routes diverge from the road, the impacts will be reduced.

Once the Maighne Wind Farm project is in operation, the potential for a traffic impact is minimal.

4.12 Air and Climate Change

4.12.1 Aspects to be Addressed

The assessment will address the potential impacts on air quality due to construction equipment and activities and 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 Maighne Wind Farm on micro-climate and macro-climate will be addressed.

4.12.2 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 *National Roads Authority (NRA) Guidelines for the Treatment of Air Quality during the Planning and Construction of National Road Schemes* (2011) will be used.

Potential vehicle emissions arising from the construction of the proposed wind farm will also be assessed using these NRA Guidelines. 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 (DMRB) (Volume 11, Section 3 Air Quality, May 2007) and published by the UK Highways Agency will be used. The DMRB model predicts vehicle emissions for NO_x, NO₂ and PM₁₀, carbon monoxide, benzene and 1,3-butadiene.

The potential micro-climatic impacts of Maighne 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 CO₂ and other greenhouse gases from fossil fuel power generation, which will not be required when Maighne Wind Farm is operational, will be quantified and assessed in terms of Ireland's commitments under EU and international climate change treaties and protocols.

4.12.3 Existing Environment

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 Maighne Wind Farm site is located between the towns of; Longwood in County Meath, Daingean in County Offaly, Kildare Town, and Prosperous also in County Kildare. In terms of micro-climate, the receiving environment within which the wind farm will be constructed is rural and is concentrated in fringe areas around cutaway bogs and within pastoral farmland. 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 Maighne Wind Farm.

4.12.4 Potential Impacts

The construction phase of Maighne Wind Farm has the potential to generate dust emissions, which could give rise to nuisance for local residents. 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 Maighne Wind Farm is not expected to have a negative impact on air quality.

Maighne Wind Farm is unlikely to have an impact on the micro-climate of the area in which it will be constructed. Maighne Wind Farm will have a positive impact on emissions of CO₂ and other greenhouse gases.

4.13 Ecology

4.13.1 Aspects to be Addressed

This chapter of the EIS will address the terrestrial and freshwater aquatic habitats and species, including those of conservation concern on and in close proximity to the wind farm, including along and in close proximity to the on-site cable routes, and on and in close proximity to the sub-station. It will also address the potential impacts on ecology from the proposed underground cable between the wind farm and the on site sub station 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, 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 including protected flora
- 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.

4.13.2 Assessment Methodology

Desk studies will be undertaken in which ecological databases, such as those of the NPWS and EPA 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 Scottish Natural Heritage guidance, and consultation with NPWS and other bodies such as BirdWatch Ireland. The ecological surveys commenced in December 2012.

The assessment methodology will be as follows:

Ecological Aspects	Element	Methodology
Winter Bird surveys	Wind Farm	<ul style="list-style-type: none"> A modified walkover survey (incorporating walking and vantage point methods) to sample wintering birds, targeted at species of conservation concern and at sampling every habitat type within the wind farm folio. The site will be surveyed 3 times across winter months (October-March) Vantage Point watches at dawn and dusk, following Scottish Natural Heritage guidelines, at sites which hold wintering wildfowl (swans/geese). Historical known sites identified during consultation will be surveyed in addition to new sites identified during walkover surveys. Flight paths and levels of flight activity to be recorded. Flight activity surveys to be carried out over two consecutive winters to allow for variances in numbers of wintering birds, weather conditions, changes in land use etc. Round Robin style wildfowl census to estimate monthly populations of wildfowl at known feeding or roosting sites; flyover surveys to estimate the overall population of species such as Whooper Swan within the greater hinterland of the study site. Targeted at sites known to be important for Whooper Swans following desktop review/consultation and or results of first winter of survey. Dusk watches and cold searching for Hen Harrier roosts, if applicable, based on known information, following IHHWRS (Irish Hen Harrier Winter Roost Survey) methods
Breeding Birds	Wind Farm	<ul style="list-style-type: none"> General breeding bird surveys following standard methods (Countryside Bird Survey) to sample general breeding birds on site. Merlin surveys - Suitable habitat on site to be surveyed. Breeding wader surveys - following methods recommended in Bibby <i>et al.</i> with coverage of the entire 500 m turbine envelope. Barn Owl surveys - will be conducted for the entire turbine footprint and out to 1.5 km from each turbine location for Barn Owl presence or absence. Survey method is an occupancy search of suitable nest/roost locations developed in conjunction with BirdWatch Ireland. Potential Barn Owl locations will be scored on suitability to allow for population comparison with other known areas where Barn Owl is present.
Autumn and Spring Migration of Birds	Wind Farm	All spring vantage point watches to be repeated in autumn to sample flight activity during periods of peak migration by birds. This will be used to inform collision risk and fatality estimates during passage periods, in addition to identifying key staging areas for specific species.
Habitats	Wind Farm	<ul style="list-style-type: none"> All sites will be mapped to Fossitt (2000) "A Guide to Habitats in Ireland", following best practice guidelines in Smith <i>et al.</i> (2011) "Best Practice Guidance for Habitat Survey and Mapping". A quality control system will be implemented to verify any potentially Annex quality habitats A habitat appraisal system has been developed which will be incorporated into the habitat assessments for Marsh Fritillary

Ecological Aspects	Element	Methodology
		<ul style="list-style-type: none"> Dedicated peatland surveys will be carried out at sites with the potential for Annex quality raised bog or which contain areas of 'high bog'. This is to inform on the status of any remaining raised bog or degraded raised bog in the study area which has the potential for restoration Detailed field maps will be collated, prepared and then digitised in GIS format.
	Cable routes and turbine delivery routes	<p>Where the cable routes deviate from the paved road:</p> <ul style="list-style-type: none"> All sites will be mapped to Fossitt (2000) "A Guide to Habitats in Ireland", following best practice guidelines in Smith <i>et al.</i> (2011) "Best Practice Guidance for Habitat Survey and Mapping". <p>For cable routes on paved roads:</p> <ul style="list-style-type: none"> The road side vegetation will be assessed and its habitat value determined by desk study of aerial photography, Google "Street View" photography and other available photography. The desk study will be verified by site visits to sample locations. Locations assessed as having high habitat value, if potential impacts identified, will be mapped as above. <p>For turbine delivery routes, if potential impacts on road side vegetation identified,</p> <ul style="list-style-type: none"> The road side vegetation will be assessed and its habitat value determined by desk study of aerial photography, Google "Street View" photography and other available photography. The desk study will be verified and habitats mapped as above, by site visits.
Mammals		<ul style="list-style-type: none"> Mammal surveys for Badger, Otter over the winter to establish presence/absence at the site.
Aquatic Ecology		<ul style="list-style-type: none"> Every watercourse shown on Discovery Series Mapping and potentially affected by the proposed development will be described and evaluated. An aquatic habitat assessment will be undertaken by walking selected sections of the affected watercourses. The assessment will use the methodology given in the Environment Agency's 'River Habitat Survey in Britain and Ireland Field Survey Guidance Manual 2003' (EA, 2003) and the Department of Agriculture for Northern Ireland's advisory leaflet "The Evaluation of habitat for Salmon and Trout". General habitat quality for macro invertebrate communities will be rated as being Optimal, Suboptimal, Marginal or Poor with reference to Barbour & Stribling (1991). Mapping of the important fisheries habitat will be undertaken to identify fisheries features including riffle/glide/pool habitats, substrate, etc. Survey sites are to be selected and these sites will be assessed in detail in terms of aquatic habitats, fish populations, macro invertebrates, aquatic plants, and presence / absence of any rare, protected or notable species. The surveys completed at each site will be of sufficient detail to make an evaluation of biological water quality, fisheries value, aquatic habitat value, and presence of rare / protected / notable aquatic species at each site. As required to assess the value of a site, electrical fishing assessments will be undertaken following the manual 'Methods for the Water Framework Directive: Electrical fishing in wadeable reaches' by CFB (2008) for salmonids and standard semi-quantitative lamprey survey methodology (O'Connor, 2004) for lampreys. Macro-invertebrate surveys at will be undertaken using standard 'kick sampling' methodology following Toner <i>et al.</i> (2005) and also the RBA 'sweep net sampling' for deeper glide habitats.

Ecological Aspects	Element	Methodology
		<ul style="list-style-type: none"> • Crayfish surveys will be undertaken, as necessary, utilising hand searching, snorkel survey/aqua-scope and/or trapping as conditions dictate, at sites where it is considered that there is a potential for this species to occur. • Surveys of Freshwater Pearl Mussels and other rare/notable/protected aquatic species will be undertaken where necessary.
Bats		<p>Spring</p> <ul style="list-style-type: none"> • Detector survey: observe bat feeding, commuting and roosting behaviour • Tree survey: identify potential tree roosts. The survey will include noting and mapping of all trees with potential for bat roosts (large trees with crevices or with substantial ivy cover). Potential tree roosts will be identified, recorded and given a GPS co-ordinate <p>Summer</p> <ul style="list-style-type: none"> • Detector and bat habitat survey: observe bat feeding, commuting and roosting behaviour to establish priority bat habitats • Structures survey: inspect on-site and, where necessary and if possible, adjacent buildings, bridges, natural caves, culverts, souterrains etc. for use by bats • Assess previously identified roosts within or adjacent to study sites and identify any further maternity roosts through dawn swarming roost surveys <p>Autumn</p> <ul style="list-style-type: none"> • Identify Leisler's bat <i>Nyctalus leisleri</i> lekking areas and other bat mating sites • Externally survey underground sites to identify level of bat use and potential for autumnal swarming. Harp trap at such sites, if necessary <p>Winter</p> <ul style="list-style-type: none"> • Review of sites with potential for refugiums or winter roosts.

4.13.3 Existing Environment

The Maighne Wind Farm site is located primarily between the villages or towns of Prosperous, Co. Kildare; Longwood, County Meath and Edenderry, County Offaly. The site contains agricultural land of either tillage or grass, plots of forestry in various stages of their lifecycle and finally, some areas of peatland.

General farmland, a mix of tillage and pasture, is present in parts of the area in which the wind farm will be located. The farmland has good quality hedgerows in many places which are important wildlife corridors, and may provide foraging for species such as Barn Owl. Winter stubble is present at the site and is important foraging habitat for winter birds and the corresponding predatory species they attract (such as wintering Merlin and Hen Harrier).

In some sites, tillage provides nesting opportunities for scarcer breeding birds such as Lapwing (Red Listed in Ireland) as does low lying improved agricultural grassland, whilst areas which include a good mix of farming types may be strongholds for species such as Yellowhammer (Red Listed in Ireland). Areas of high bog or peatlands provide nesting habitat for species such as Meadow Pipit and raptors such as Merlin. Areas of scrub, young forestry and bog also may provide roosting opportunities for Hen Harrier during the winter months. Some of these high bogs may correspond to Annex quality habitat such as active raised bog, dependant on the quality of the habitat present. Forestry in many cases mature, provides nesting habitat for species such as Sparrowhawk and may support species such as Pine Marten, Badger and Red Squirrel.

The Blackwater River, River Figile and Black River comprise some of the main waterbodies found within the proposed development area. Rivers such as the Blackwater and their tributaries are in many cases important salmonid fisheries and may contain populations of species such as Crayfish. Important mammal species within this context would be Otter and bird species such as Kingfisher.

Three canals, the Grand Canal, the Royal Canal and the Barrow Way are found within the area within which the wind farm is proposed.

Lakes, quarries and flooded sections of cutaway peatlands also provide important roost sites for species such as Whooper Swan.

Potential impacts on Natura 2000 sites as a result of the proposed development will be assessed through the appropriate assessment process. No proposed turbines are located within Natura 2000 sites.

In instances where ecological sensitivities are identified, rivers and streams will only be crossed using trenchless techniques. Cables will be installed mainly in roads which are typically bounded by hedgerows, fences or walls. At particular locations, where cables encounter obstacles such as rivers, the routes may diverge from the paved road. At some locations it may be necessary to locate the jointing bays off the road. Off-road jointing bay locations will be chosen to avoid rare or protected habitat.

4.13.4 Potential Impacts

Potential impacts of the wind farm on flora and fauna include:

- Direct loss of habitat and ecologically sensitive areas, including Annex Habitats, due to the footprint of the area,
- Damage to adjacent habitats during construction, examples would be sites adjacent to, but not within natural heritage areas for raised bog; which could potentially be affected by construction activity,
- Impacts during construction on the hydrology of water dependant habitats such as raised bogs.
- 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 such as Freshwater Pearl Mussel, Crayfish, Salmonids, Lamprey species, Otter, Kingfisher etc. during construction or due to pollution events etc.
- Disturbance to local wildlife, including loss of habitat for, or displacement from, known foraging or breeding areas of badgers, bats, Red Squirrel, Pine Marten etc.
- 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,
- Impacts on Marsh Fritillary habitat during construction, loss of potential areas for colonisation within a specific distance of known colonies,
- Impacts on migratory wildfowl, in particular species listed on Annex I of the EU Wild Birds Directive such as Whooper Swan, Peregrine, Golden Plover etc.
- Impacts on specific bird species through collision risk; in particular species such as Whooper Swan, additional Annex species such as Golden Plover and red listed breeding species such as Lapwing, Black Headed Gull,
- Displacement of Annex species or species of conservation concern such as Whooper Swan from key feeding areas during the winter months, also displacement from potential staging areas in Autumn and Spring,
- Displacement of species such as Merlin from limited breeding areas.
- Displacement or disturbance to breeding waders such as Curlew, Snipe, Woodcock etc. from areas within 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,
- Cumulative impacts which may affect the conservation status of any given species, in particular Annex species such as Whooper Swan.
- Collision risk to Bats
- Loss of Bat habitat through the removal of trees etc. suitable for roosting.
- Disturbance to foraging Bats due to during construction activities.
- Impacts on the conservation status or constituent parts of Natura 2000 sites.

The cables will be installed mainly in roads in trenches in the carriageway, hard shoulder or grass verge. The main risk of impact on flora and fauna will be where the cable routes diverge from the road.

At these locations, the potential impacts will be direct disturbances from construction activities, disturbance to fauna, and pollution of watercourses by silt or by a spill of liquids or fuels used during construction. In some locations it may be necessary to remove or trim road side trees and hedge rows.

At the rivers, streams and watercourses to be crossed using trenching, the potential impacts include direct disturbance of the bed, substrate and banks, disturbance of the species present, and the generation of silt. There will also be a risk of pollution of the watercourses by silt or by a spill of liquids, drilling fluids or fuels used during construction.

Once the wind farm is operational, the potential for a negative impact from the cables on terrestrial and freshwater flora and fauna is minimal.

4.14 Soils and Geology

4.14.1 Aspects to be Addressed

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

4.14.2 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 (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
- 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.

4.14.3 Existing Environment

The geology underlying the elements of Maighne Wind Farm varies considerably.

The formations include Allenwood Formation to the west (Ballinla and Clonbullogue), Lucan Formation (Calp) in the central and eastern areas, Waulsortian in the northeast (Ballynakill) and Allenwood, Boston Hill and Waulsortian in the southeast of the area. These formations comprise a mixture of limestones, shales, sandstone and siltstones which are often interbedded.

The overburden comprises predominantly cutover peat, often overlying glacial till derived from the underlying bedrock. The peat is often absent. Other soils present in minor areas lake sediments, fluvio-glacial and limestone based sands and gravels and alluvium along the river valleys. There is no stability issue anticipated as the site is essentially flat and the risk of a peat slip has been assessed as very low.

4.14.4 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.
- 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.

Once Maighne Wind Farm is operational, the potential for a negative impact on soils and geology is minimal.

4.15 Hydrology

4.15.1 Aspects to be Addressed

The assessment will address the aspects of the hydrological environment that could be affected by the activities associated with the proposed Maighne Wind Farm.

4.15.2 Assessment Methodology

The objectives of the relevant River Basin Management Plans in relation to water quality will be considered. The review will include the County Development Plans for Kildare, Offaly and Meath and will consider 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 (IFI) and relevant local authorities, relating to hydrology, drainage and flooding 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.

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.

There is no peat stability issue associated with the Maighne Wind Farm site as the site is essentially flat and the risk of peat slip has been assessed as very low, therefore this aspect of flood risk will not be relevant to this site.

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 Maighne 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.

4.15.3 Existing Environment

Maighne Wind Farm extends over the Eastern River Basin District (ERBD) and the South Eastern River Basin District (SERBD).

The main river catchments are the River Blackwater, River Boyne, Phillipstown River, River Figile, Black River and the Slate River. Tributaries of these rivers comprise some of the main waterbodies found within the proposed development area. There are three canals, the Grand Canal, the Royal Canal and the Barrow Line within the area within which the wind farm is proposed.

4.15.4 Potential Impacts

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 flora and fauna 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 and crushing of stone in site access roads by heavy vehicles creates fines.
- 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.

The potential impacts on hydrology and drainage that may arise from the 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.

Where cable trenches and jointing bays are to be constructed in an area with a very high water table, the trench and jointing bay may have to be dewatered and the water removed may have to be discharged to a local watercourse. Where rivers and streams are crossed by trenchless techniques, dewatering of launch pits or pilot holes may be required.

These would result in a localised depression of the water table at the trench or launch pit for the duration of the construction at that location. Such a localised depression of the water table has the potential to have an impact on sensitive habitats such as blanket bog or fen, which are dependent on the groundwater regime. There would be the risk of water, with potentially high levels of silt, being discharged to the local watercourse. The main risk of impact will be where the cable routes diverge from the road and cross watercourses by trenching. The potential impacts will be pollution of watercourses by silt or by a spill of liquids, drilling fluids or fuels during construction.

At the substation, the potential impacts are the pollution of groundwater by a spill of liquids or fuels during construction. The sub-station and the construction compound will have staff welfare facilities. Where possible, these will be connected to local authority sewers, where possible or holding tanks installed. There will be the potential for sewage contamination of groundwater.

4.16 Water Quality

4.16.1 Aspects to be Addressed

The assessment will address water quality impacts on the surface water courses that could be affected by the activities associated with the proposed Maighne Wind Farm.

4.16.2 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 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 County Development Plans for Kildare, Offaly and Meath and will consider the policies and objectives of the Plan in relation to water quality of surface water and groundwater. The assessment will be prepared in accordance with the EPA and OPW guidance. Any concerns expressed by consultees such as Inland Fisheries Ireland (IFI) and relevant local authorities, relating to water quality and groundwater, 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.

Baseline monitoring will be carried out where required. In this instance, the scope of this sampling will be agreed with Inland Fisheries Ireland (IFI) and will also follow relevant guidance for determining baseline water quality.

4.16.3 Existing Environment

The proposed Maighne wind farm lies within the Eastern River Basin District (ERBD) and the South Eastern River Basin District (SERBD).

The main river catchments are the River Blackwater, River Boyne, Phillipstown River, River Figile, Black River and the Slate River. Tributaries of these rivers comprise some of the main waterbodies found within the proposed development area. There are three canals, the Grand Canal, the Royal Canal and the Barrow Line within the area within which the wind farm is proposed.

The area is underlain by a generally mod productive bedrock aquifer (Lm Locally Important Aquifer). The proposed Maighne Wind Farm is located within a number of groundwater body catchments, as defined by the Water Framework Directive (WFD) and are classified as having 'Good' status. Risk categories have been assigned by the EPA to the groundwater bodies. The area crossed is categorised as 'at risk', 'probably not at risk' and 'not at risk'.

4.16.4 Potential Impacts

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 flora and fauna 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 and crushing of stone in site access roads by heavy vehicles creates fines.
- 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.

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

- Grout from concreting operations could contaminate receiving waters.
- Small diameter cross-drains could become blocked and result in flooding and concentration of flows.
- Refuelling activities could result in fuel spillages.
- Sanitary waste arising from temporary construction compounds could lead to contamination of groundwater.

Where cable trenches and jointing bays are to be constructed in an area with a very high water table, the trench and jointing bay may have to be dewatered and the water removed may have to be discharged to a local watercourse. Where rivers and streams are crossed by trenchless techniques, dewatering of launch pits or pilot holes may be required. These would result in a localised depression of the water table at the trench or launch pit for the duration of the construction at that location. Such a localised depression of the water table has the potential to have an impact on sensitive habitats such as blanket bog or fen, which are dependent on the groundwater regime. There would be the risk of water, with potentially high levels of silt, being discharged to the local watercourse. The main risk of impact will be where the cable routes diverge from the road and cross watercourses by trenching. The potential impacts will be pollution of watercourses by silt or by a spill of liquids, drilling fluids or fuels during construction.

At the substation, the potential impacts are the pollution of groundwater by a spill of liquids or fuels during construction. The sub-station and the construction compound will have staff welfare facilities. Where possible, these will be connected to local authority sewers, where possible or holding tanks installed. There will be the potential for sewage contamination of groundwater.

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.

4.17 Archaeology, Architecture and Cultural Heritage

4.17.1 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 existing 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.

4.17.2 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, National Inventory of Architectural Heritage (NIAH), Records of Protected Structures (RPS) and landscape characterisation).
- A review of the UNESCO World Heritage Sites and Candidate UNESCO World Heritage Sites.
- A review of designated archaeological landscapes.
- A review of the Record of Protected Structures (RPS) and ACA's in the Kildare County Development Plan 2011-2017, Offaly County Development Plan 2014-2020 and Meath County Development Plan 2013-2019.
- A review of the 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 such as the County Kildare Industrial Archaeological Heritage Survey & Inventory, Bridges of Offaly (2005) and Meath Place Names Project Meath Industrial Heritage Survey (2010).
- Collation of information from similar or other infrastructure projects in proximity to the proposed wind farms, for example EISs, SEAs, conservation plans, archaeological test assessments and excavations (including the Database of Irish Excavations).
- Cartographic sources.
- A review of place names.
- 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.

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. Not all settings of historic sites have the same capacity to accommodate change with harm to the significance of the heritage asset. The capacity to absorb change depends on a number of different factors such as visual dominance, scale, monument intervisibility, vistas and sight-lines, movement, sound or light effects and effects on unaltered settings (English Heritage 2005) and will be explored on a case by case basis. The assessment will be carried out in accordance with available guidance on environmental impact assessments.

Interactions and consultation

The scale, form and layout of the proposed Maighne 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.

4.17.3 Existing Environment

The proposed development is in a well-documented archaeologically rich landscape with sites and monuments representing evidence for ritual, settlement, social and economic activity dating from the prehistoric period all the way up to the present day with most sites also having strong folkloric associations. These include nationally important monuments (National Monuments), notable clusters, complexes and sites and archaeological landscapes.

The study area has a rich and varied cultural landscape of historic buildings ranging from nationally important round towers, landscape follies, churches, estate houses and designed landscapes to middle sized houses that make architectural statements to the more modest vernacular buildings and street furniture.

In association with the large houses are the designed landscapes these comprise complex and elaborate gardens and parkland, with clear outer boundaries that provide a setting for the houses. They contain buildings, access drives, walks and avenues, gardens, parkland enclosures, deer parks, walled gardens, woodlands, formal gardens, vistas, lake and rivers, follies, water features, planted avenues and earthworks. Many have agricultural lands that fall outside the demesne or parkland boundary and associated workers cottages and gate lodges. Some contain archaeological features and notable plant collections.

The study area also has industrial heritage features associated with early coach roads, canals and railways and their associated infrastructure such as bridges, mills and inns etc.

The landscape in the study has been modified due to intensive agricultural development, centuries of arable cultivation, industrialised peat extraction and also recent land improvement including industrial forestry. These processes have created a modern agricultural landscape consisting of large to medium sized open fields. Field inspection will testify to this, as many of the field boundaries marked on Ordnance Survey maps have disappeared and fields have been amalgamated and surrounded by deep drainage ditches. Many below ground archaeological remains, however, will not be readily identifiable and where possible, areas of archaeological potential will be highlighted, using the data gathered, fieldwork and professional judgement.

The study area is part of the expansive Bog of Allen which for the most part has been milled industrially and also afforested. The archaeological potential of this bogland and its surrounding wetland/ dryland interface has the potential to contain preserved organic deposits such as wooden trackways, bog butter and bog bodies and settlement activity and votive deposits.

The townland names in the study area are an invaluable source of information, not only on the topography, land ownership and land use within the landscape, but also on its history, archaeological monuments and folklore. Many of the names are Irish or anglicised forms of Irish however as the extensive medieval heritage of this part of the county would imply, many of the names are derived from Anglo-Norman sources or are translated into English. The appearance of the different languages is often a good indicator of the cultural heritage, and therefore the archaeological record of the area.

4.17.4 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, 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.

4.18 Telecommunications and Aviation

4.18.1 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 EIS will include an assessment of any such potential impacts.

4.18.2 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, CER, 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:
 - Les is minimaation
 - Telecommunications link relocation
 - Underground fibre optic cables to replace microwave link
 - Submission of final detailed layout to telecoms operators.
 - Agree suitable mitigation strategy if necessary.

Remedial measures in relation to television reception are not difficult to implement, are relatively inexpensive and if necessary will be undertaken by the developer in conjunction with 2rn (formally RTÉ NL). 2RN will be consulted during the pre-planning stage and a standard protocol agreement between the developer and 2RN will be prepared and signed prior to the commencement of the development.

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

4.18.3 Existing Environment

The area in the vicinity of Maighne Wind Farm is served by a wide range of radio and microwave telecommunications and data links, which are used by the emergency services, telecoms operators and utilities providers. The area crossed is also crossed by telecoms overhead lines and cables.

4.18.4 Potential Impacts

The Irish Wind Energy Association (IWEA) 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.

Interference to a communication system can occur in two ways as follows:

1. *Signal Scattering* - Large wind turbines can act as sources of re-radiation producing delayed 'ghost' signals that are modulated in amplitude by the rotation of the blades. The amplitude of the re-radiated signals is greatest when the plane in which the blades rotate is orientated so that the angle of incidence and reflection are equal. This is called the 'specular reflection' condition. Specular reflection can occur periodically, as the blade of the wind turbine turns into the wind about a vertical axis.
2. *Signal Obstruction* - If the wind turbine turns through 90° from the specular reflection condition, it will act as an obstruction in the path of the wanted signal and will, in general, simply reduce the wanted field strength.

Excavation of the cable trenches and jointing bays for Maighne Wind Farm could potentially damage existing telecommunications cables. Once Maighne Wind Farm is operational, the potential for a negative impact on telecommunications cables is minimal.

4.19 Landscape and Visual Impact

4.19.1 Aspects to be Addressed

Landscape impact assessment relates to changes in the physical landscape, brought about by the proposed development, which may alter its character and how this is experienced. This requires a detailed analysis of the individual elements and characteristics of a landscape that go together to make up the overall landscape character of that area. By understanding the aspects that contribute to landscape character it is possible to make judgements in relation to its quality (integrity) and to identify key sensitivities. This, in turn, provides a measure of the ability of the landscape in question to accommodate the type and scale of change associated with the proposed development, without causing unacceptable adverse changes to its character.

Visual impact assessment relates to changes in the composition of views as a result of changes to the landscape, how these are perceived and the effects on visual amenity. Such impacts are population based rather than resource based as in the case of landscape impacts.

Landscape impact assessment and visual impact assessment will be undertaken. The assessments will address landscape context, character, vulnerability and sensitivity to change, scenic amenities and protected routes and views, which are designated in the County Development Plans. It will also assess visual impacts from a range of receptor locations including centres of population, major routes, the local community as well as heritage and amenity features that attract tourists and visitors.

Cumulative landscape and visual impacts will also be assessed in relation to other relevant developments. This will be undertaken in relation to other existing and permitted developments.

4.19.2 Assessment Methodology

The assessment of the impacts of the wind energy development will involve desktop studies and fieldwork comprising professional evaluation by qualified and experienced Landscape Architects which will include:

- Stage 1: Data collections, research and baseline establishment
- Stage 2: Intensive fieldwork, viewshed reference point selection, photo capture and Route Screening Analysis
- Stage 3: Identification of potentially significant impacts, incorporation of mitigation measures and production of photomontages
- Stage 4: Final assessment and reporting

Two of the technologies that are proposed for this project included:

Route Screening Analysis (RSA) – this is a distillation of the results of the zone of theoretical visibility using geo-referenced, close interval photography. Unlike the zone of theoretical visibility this offers a realistic statement of visibility from routes adjacent to a site by assessing and classifying the levels of screening afforded by trees, hedgerows and buildings.

This is especially useful for rural areas with a high degree of hedgerow screening and will be a central feature of the landscape and visual assessment for the Maighne Wind Farm project.

Theoretical Visual Intensity (TVI) Mapping – this is an innovative form of mapping based around the principles of standard Zone of Theoretical Visibility (ZTV) mapping. Whilst standard ZTV mapping accounts for terrain screening in relation to a particular point on a given object or set of objects such as turbines, Visual Intensity Mapping also considers the scale in relation to distance of the turbine/s and the extent of turbine/s that is potentially visible above the terrain. This form of mapping will be useful to highlight those parts of the study area that are most or least likely to experience visual impacts from the proposed development. When coupled with the Route Screening Analysis, described above, this form of mapping will reveal many of the idiosyncrasies of the visual environment within the study area.

Assessment	Methodology
<i>Data collection, research and baseline establishment</i>	<ul style="list-style-type: none"> • Review of County Development Plans • Establishing an appropriate study area from which to study the landscape and visual impacts of the proposed wind farm • Compile and analyse the landscape character assessments in the study area and identify scenic routes and views • Identify sensitive visual receptors • Develop a project specific landscape character assessment • Review of zone of theoretical visibility and visual intensity maps, which indicate areas from which the wind farm will be potentially visible in relation to the terrain within the study area • Selection of potential viewshed reference points from key visual receptors to be investigated during fieldwork for actual visibility and sensitivity • Preparation of an initial viewshed reference point selection map
<i>Fieldwork, viewshed reference point selection and photo capture</i>	<ul style="list-style-type: none"> • A route screening analysis (RSA) will be conducted to establish inherent levels of screening within the study area. • Preparation of a Viewshed Reference Point selection report which will outline the rationale for selecting or rejecting every viewshed reference point that was investigated during fieldwork. This will culminate in the selection of a refined set of viewshed reference points for assessment. • Capture of panoramic photography with grid reference coordinates for all viewshed reference point locations for the visualisation specialist to prepare photomontages
<i>Assessment of Impacts and photomontages</i>	<ul style="list-style-type: none"> • Description of the geographic location and landscape context of the proposed wind farm • General landscape description concerning essential landscape character and salient features of the study area, discussed with respect to: <ul style="list-style-type: none"> ○ landform and drainage ○ vegetation and land use ○ centres of population and houses ○ transport routes ○ public amenities and facilities • discussion of design guidance, the planning context and relevant landscape designations • Assessment of predicted landscape impacts • Assessment of predicted visual impacts using standard zone of theoretical visibility maps and cumulative zone of theoretical visibility maps as well as photomontages prepared from selected viewshed reference point locations • Discussion of mitigation measures • Assessment of residual impacts following mitigation

4.19.3 Existing 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 Maighne Wind Farm site is located between the towns of; Longwood in County Meath, Daingean in County Offaly, Kildare Town, and Prosperous also in County Kildare.

4.19.4 Potential Impacts

The main potential impacts that may arise for the construction of the Maighne Wind Farm will be changes to the landscape character and intrusion on views over the landscape from houses settlements, roads and amenity areas.

The main potential impact from the cables will be vegetation clearance during construction, particularly where the cable routes diverge from the road network. Once construction is completed, the potential for a negative landscape or visual impact due to the cables is minimal.

The sub-station will be located in areas with a high degree of screening from public receptors such as roads and settlements.

5 CUMULATIVE IMPACTS, INDIRECT IMPACTS AND INTERACTION OF EFFECTS

5.1.1 Aspects to be Addressed

The cumulative impacts of Maighne Wind Farm with other projects, existing or which have received planning permission but have not yet been built, 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.

5.1.2 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 Maighne 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 EIS 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.

5.1.3 Existing Environment

There are other wind farms operating, in planning or under construction in parts of the Midlands in proximity to elements of Maighne Wind Farm.

5.1.4 Potential Impacts

Maighne Wind Farm has the potential to significantly reduce Ireland's reliance on fossil fuel power generation and assist in it meeting its 2020 targets for renewable energy generation.

If large wind energy or other large developments in the vicinity were under construction at the same time as Maighne Wind Farm, there would be a cumulative increased demand for construction materials and skills, and there would be increased traffic. There may also be impacts on the procurement lead times for turbines, cables and other equipment.

6 REFERENCES

ⁱ Planning and Development Act 2000. Number 30 of 2000

ⁱⁱ Planning and Development (Strategic Infrastructure) Act 2006. Number 27 of 2006

ⁱⁱⁱ Central Statistics Office: Census 2011 Population Classified by Area, Table 1: Population of Province, County and City, actual and percentage change 2006-2011

^v http://census.cso.ie/areaprofiles/areaprofile.aspx?Geog_Type=CTY&Geog_Code=06

^{vi} Census 2011

^{viii} <http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/saveselections.asp> - StatBank / Live Register / LRM07 / Select from table LRM07 – Kildare County

^{ix} Central Statistics Office: Census 2011 Population Classified by Area, Table 1: Population of Province, County and City, actual and percentage change 2006-2011

^{xi} http://census.cso.ie/areaprofiles/areaprofile.aspx?Geog_Type=CTY&Geog_Code=11

^{xii} <http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/saveselections.asp> - StatBank / Live Register / LRM07 / Select from table LRM07 – Meath County

^{xiii} Central Statistics Office: Census 2011 Population Classified by Area, Table 1: Population of Province, County and City, actual and percentage change 2006-2011

^{xv} http://census.cso.ie/areaprofiles/areaprofile.aspx?Geog_Type=CTY&Geog_Code=12

^{xvi} <http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/saveselections.asp> - StatBank / Live Register / LRM07 / Select from table LRM07 – Offaly County

^{xvii} 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

Appendix A

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Our Ref: Q:\LE14\731\04/Let010/TPR/MG

«Contact»
«Position»
«Organisation»
«Address1»
«Address2»
«Address3»
«Address4»

08 December 2014

RE: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Dear «Salutation»,

I refer to the recent scoping report that was issued to you regarding the above mentioned Maighne Project. At the time the scoping document was produced the proposed connection to the national grid was not known. We are now aware of two potential connection points to the national grid in Woodlands County Meath and Maynooth in County Kildare. The final decision on the connection point to the grid will be made by EirGrid.

As part of the EIS for the Maighne Project, both proposed cable routes to the national grid will now be assessed. While both options will be assessed only one route will be utilised for the connection to the national grid.

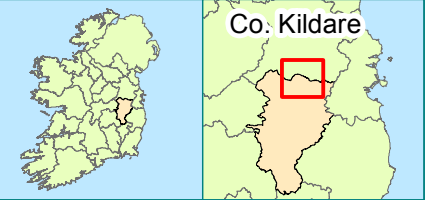
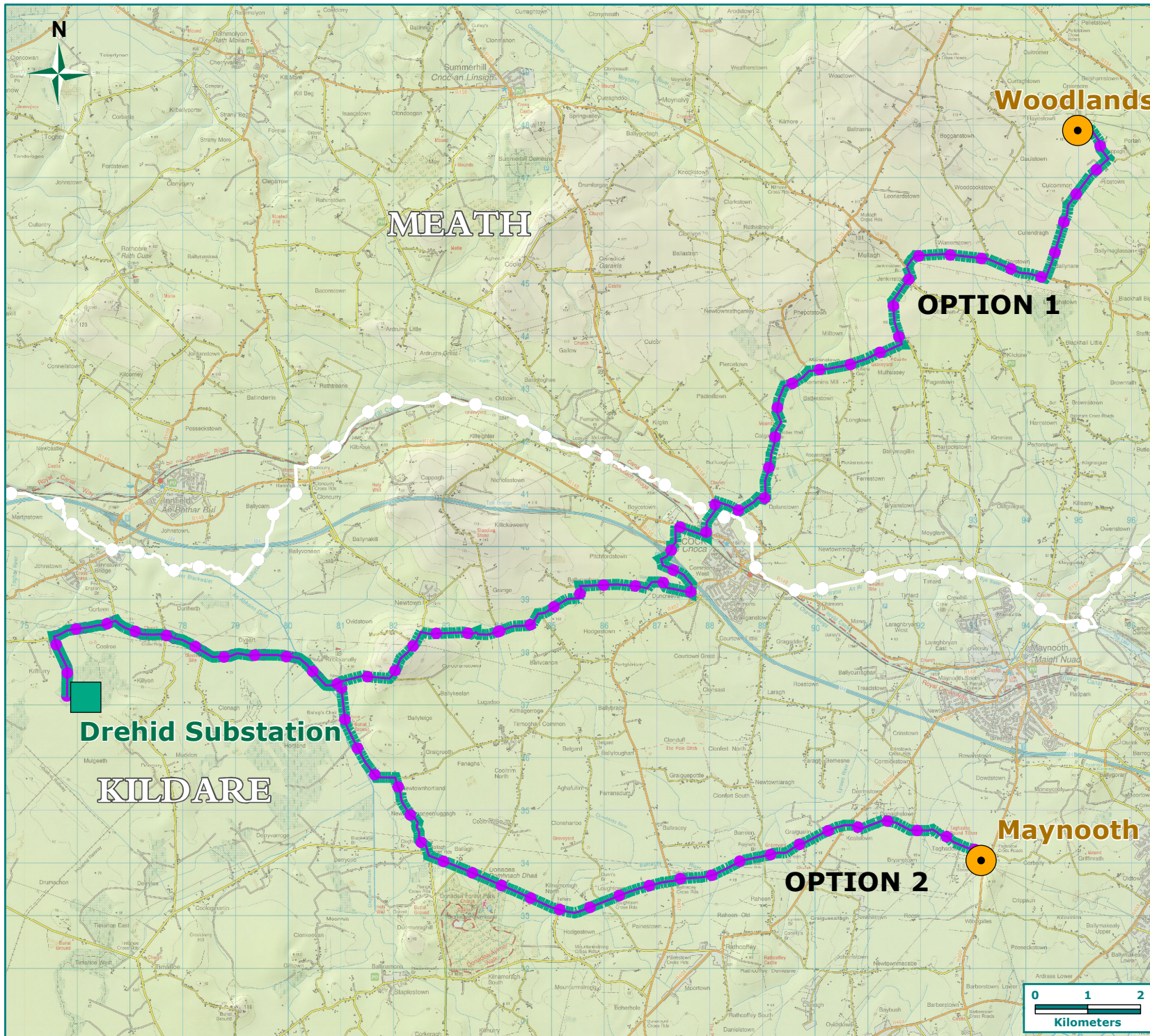
Please find enclosed a figure which outlines both grid connection options. If you have any further comments on the scope of the EIS with regard to the inclusion of the cable options, we would be grateful if you could submit them in writing by post to the address provided on this letter, or by email to maighnewindfarmscoping@ftco.ie. The closing date for receipt of comments is Wednesday 17th December 2014.

Should you have any queries regarding Maighne Wind Farm, please do not hesitate to contact the undersigned or email maighnewindfarmscoping@ftco.ie.

Yours faithfully,

Tina Raleigh
for and on behalf of **Fehily Timoney & Company**

Encl.



Co: Kildare

Legend

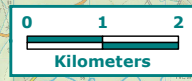
- Proposed Substation Location
- Irish Grid Connection Points
- Potential Irish Grid Connection Route

Date	09/12/2014
Name Of Client	
Element Power	
Name Of Job	Maignhe Wind Farm
Title Of Figure	Scoping Map of Potential National Grid Connection Routes
Scale Used	1:100,000 @ A4
Figure No.	1
Rev	A

FEHILY TIMONEY & COMPANY
 CONSULTANTS IN ENGINEERING & ENVIRONMENTAL SCIENCES

Core House, Pouladuff Rd, Cork, Ireland.
 T: +353-21-4964133, F: +353-21-4464
 Unit 16 JS Plaza, North Park Business Park, Dublin 11, Ireland.
 T: +353-1-6583500, F: +353-1-6583501

W: www.fehilytimoney.ie, E: info@ftco.ie



Tina Raleigh

From: Rebecca McKeon <rebecca.mckeon@opw.ie>
Sent: 19 December 2014 17:29
To: Sinead Timoney
Subject: Re: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Hi Sinead,
I have no further comments at this stage,
Many thanks,
Rebecca.

On 19/12/2014 08:52, Sinead Timoney wrote:

RE: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Dear Ms. McKeon

I refer to the recent scoping report that was issued to you regarding the above mentioned Maighne Project. At the time the scoping document was produced the proposed connection to the national grid was not known. We are now aware of two potential connection points to the national grid in Woodlands County Meath and Maynooth in County Kildare. The final decision on the connection point to the grid will be made by EirGrid.

As part of the EIS for the Maighne Project, both proposed cable routes to the national grid will now be assessed. While both options will be assessed only one route will be utilised for the connection to the national grid.

Please find attached a figure which outlines both grid connection options. If you have any further comments on the scope of the EIS with regard to the inclusion of the cable options, we would be grateful if you could submit them in writing by post to the address provided on this letter, or by email to maighnewindfarmscoping@ftco.ie. We are hoping to submit the planning application for the proposed development in mid-January, therefore I would appreciate if you could forward any comments you may have prior to that.

Should you have any queries regarding Maighne Wind Farm, please do not hesitate to contact Ms. Tina Raleigh or email maighnewindfarmscoping@ftco.ie.

Yours sincerely,
Sinéad

Sinéad Timoney
Fehily Timoney and Company | Core House | Pouladuff Road | Cork | Ireland|

Tel: +353 21 496 4133 Mobile: +353 879399592 Fax: +353 21 496 4464
Mail to: sinead.timoney@ftco.ie | Web: www.fehilytimoney.ie
Skype: Sinead.Timoney

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--
Kind Regards,

Rebecca McKeon | Planner MIPI

Architectural Services, The Office of Public Works | T 01-647 6329

To transmit large email attachments to me please use:
<https://filetransfer.opw.ie/filedrop/rebecca.mckeon@opw.ie>

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20141210-PC-MAIGHNE

Tina Raleigh
Fehily Timoney & Company
Core House
Pouladuff Road
Cork

maighnewindfarmscoping@ftco.ie

10.12.14

Re: Proposed "Maighne Wind Farm" consisting of up to 55 No. Turbines in multiple dispersed locations in counties Kildare, Offaly and Meath

Dear Ms Raleigh,

Thank you for referring this scoping request to An Taisce for comment. This application is being proposed in the same manner as the Emlagh Wind Farm in North Meath. It is wished to submit the following:

1.0 Legal entitlement to lodge Strategic Infrastructure Application

It is submitted that the applicant needs to address the entitlement to submit the application as a single Strategic Infrastructure project should be addressed and determined as preliminary matter. This proposal is being presented as having up to twenty sites. While the map information gives a name to these areas, the actual number of landholdings on which turbine sites are proposed is not identified. Even within these sites the actual turbine sites might be disconnected from each other by landowners who are not party to the application.

The full scale and dispersed nature of the development needs to be communicated in the development description and written information in the EIS. The eastern most turbines at Hortland is c. 30km from the westernmost at Ballinla. The southernmost turbine at Cloncumber is c. 22km from the northernmost at Ballynakill 2.

As far as we are aware this will be the fifth Strategic Infrastructure application for a wind energy development to have been lodged with the Board.

Only the first has been determined to date, namely that at Sragh near Doonbeg on the County Clare Coast (Ref: 03.PA0025) refused on 25th July 2013. In scale and dispersed impact the Maighne proposal differs radically to the County Clare proposal comprising a dispersed scattering of unconnected turbine clusters across a wide area of landscape. The two other applications at Bellacorrick Co Mayo are currently with the Board having been subject to Oral Hearing earlier this year. Both of these were single clustered applications on single landholdings by Bord na Mona and Coillte respectively.

While the total MW generating capacity of the Maighne proposal comes under the SI thresholds, the actual proposal is for a scattered distribution of disconnected sites all of which are under the Strategic Infrastructure threshold. It is noted that legal action has been initiated against An Bord Pleanála on the eligibility of the Emlagh application as a Strategic Infrastructure proposal under the Planning and Development Acts as amended 2006, in High Court proceedings lodged on 26th November.

While the proposal is presented as a single application, the proposal requires grid connections between the proposed turbine sites to the national grid at either Woodlands or Maynooth. However, it is not clear whether this will form part of the Strategic Infrastructure application.

An application for quarrying or housing would not be accepted if the proposal was for a number of locations of different areas or numbers in disconnected sites across a wide area. We consider that when the Strategic Infrastructure legislation was approved in 2006, that an application of this kind was never envisaged. Accordingly the eligibility of this proposal to qualify for Strategic Infrastructure under current legislation and planning guidelines and policies should be determined and resolved as preliminary matter.

2.0 Origin of Development as Export Proposal

The current proposal originated as part of the larger “Greenwire” plan by Element Power for an interconnected network of turbine clusters in the midlands for export to the UK grid, with another entity Mainstream Power pursuing a competing proposal.

The Department of Energy Communications and Natural Resources initiated a public consultation on Wind Energy Export with a submission deadline in 2013. Following collapse of the negotiations between the Irish and UK Governments earlier this year further consideration for facilitating wind energy export was abandoned. Element had in the meantime entered into financial agreement with landowners to accommodate turbine applications and is now advancing this proposal for connection into the national grid.

With the collapse of the export negotiations the Department of Energy Communications and Natural Resources has abandoned consideration of the export proposal and is now initiating assessment and consultation on the optimum location for future wind energy development in Ireland, which would include the identification and protection of strategic areas.

This means that the planning considerations, development quantum and development locations which were being advanced by Element and Mainstream are no longer applicable or relevant to renewable energy demand and capacity up to 2020.

3.0 Cumulative Assessment with other wind energy proposals.

This application requires cumulative assessment with other proposed wind energy development. Element is also pursuing a planning consent for Emlagh which also originated as an export proposal. It proposes up to three clusters stretching across North County Meath for 47 turbines in large area of landscape. The same considerations raised by the Emlagh application also apply to this proposal.

There is also a now a decided application (Ref: KA/140921) in Co Meath applied for by Cregg Wind Farm Limited for the grant of a ten year planning permission for development for the construction, operation and decommissioning of a wind farm of up to six number wind turbine generators to export electricity to the national grid. Each turbine will be up to 150 metres to blade tip height with an associated crane hardstand. The works will also require the construction of an electrical substation, a meteorological mast, cabling and access tracks to each turbine and ancillary works

including a temporary construction compound and site entrance access upgrades for abnormal loads, at this site at Cregg, College and Rathgillen townlands, Nobber, Co. Meath. This application was refused on six grounds.

4.0 National Policy and Strategy

Wind energy development comes under DoECLG Wind Energy Development Planning Guidelines, which are currently being revised. Wind energy development in Ireland is causing increasing conflict with local communities affected. Proper national strategic consideration is urgently needed to identify the most appropriate locations for further turbine development to meet the 2020 40% national renewable target, and how further post 2020 wind energy development is to be linked to the national requirement to achieve decarbonisation by 2050. Parallel to this wind energy development needs to be reconciled with the concerns of rural communities.

4.1 The 40% Renewable 2020 Target

There is a need to identify:

- a) The current level of permitted development with viable grid connection which can be commissioned by 2020;
- b) The additional capacity need to meet the 40% target. With the quantum of development needed to meet the target identified the optimum locations can be assessed;

This proposal should demonstrate that the meeting of the 40% renewable 2020 targets requires development at these locations proposed and that there are not other more suitable locations. If there are any other sites less problematic in residential amenity and other impact then these should be given consideration before even entertaining the Maighne proposal.

4.2 The National Low Carbon Roadmap

Government is committed to Low Carbon Roadmap to 2050 with consultation having already been initiated by Government Departments. This means that renewable development needs to be integrated with an overall energy demand reduction, efficiency and decarbonisation for power generation, transport and heating with the adoption of a cumulative carbon budget used to apply legally-binding annual targets to reduce Ireland's climate emissions arising from all these sectors as well as land use and agriculture. This will result in parallel cuts to energy imports, including the €6.5 billion euro spent annually bringing fossil fuels and biofuels into Ireland. This proposal is premature in the absence of such an overall National strategy.

The current national wind energy policy never envisaged a wind energy project of the scale and dispersed nature of the Maighne proposal. This proposal which is developer-led is being put forward without any national or local policy framework to respond to an application of this scale of dispersed location impact. The effect of this proposal has already been to divide the local community between landowners benefiting from the revenue from turbine sites and others.

The proposal has not been subject to any national evaluative process to select the nationally optimum sites in terms of the impact on the environment and ecology residential amenity landscape and cultural heritage. This is inappropriate developer led rather than national and strategic based planning.

The selection process for future turbine locations needs to be based, in part, on optimum site cluster suitability, and grid connection availability. The capacity of the major State-owned land

banks, those held by Bord na Mona and Coillte in particular, need to be suitably recognised in preference to farmland, areas having an adverse impact on residential amenity, locations affecting European Natura 2000 sites, areas of particular landscape sensitivity designated in development plans and sites of cultural heritage significance. Any consideration for optimum wind cluster location in Ireland needs to be based on a prior national evaluation of optimum location suitability.

5.0 Constraint Screening

A constraint guidance system should exclude EU-designated Natura 2000 sites, locations with significant residential amenity impact, sites affecting high amenity landscape designations in local authority development plans and the landscape setting of sites of cultural heritage, including significant monuments and designed landscapes. For example, that proposed at Ballinla should be excluded given the proximity to the Grand Canal and its associated amenity and ecology.

6.0 Equitable Local Stakeholder Participation

It is an anomaly that a landowner leasing the site for a turbine base would receive very significant income, while a householder living near that site – even nearer than the landowner but without any ownership interest - would get no benefit at all. An equitable provision is required to provide local residents / communities to part-share in the annual revenue for hosting large-scale wind turbines. Such an equitable provision could be designed on radial distances from the turbine base, a provision which could be suspended where line of sight did not exist, for example.

7.0 Relevant Precedents

There is no direct planning precedent for this proposal in the scale of landscape and residential amenity impact. However two decisions of the Board deserve particular examination:

Sragh, Doonbeg, Co. Clare Coast (Ref: 03.PA0025) refused on 25 July 2013. This Strategic Infrastructure application was refused by An Bord Pleanála for 3 no. reasons relating to:

- 1) negative impact on residential amenity and tourism,
- 2) proximity to a river containing the freshwater pearl mussel,
- 3) the proposal being contrary to the Wind Energy Strategy for County Clare which identifies the appropriate scale of development for such areas to be medium 6-10 turbines and too close to existing/permitted wind farms in the area.

The second ground on residential amenity stated:

Having regard to the scale of the proposed development, its location relative to a significant number of residential properties, the settlement of Doonbeg, tourist amenities, including the Doonbeg Golf Club and Resort, it is considered that the proposed development would seriously injure the amenities of the area, by reason of visual intrusion and overbearing visual impact, and would seriously detract from the tourism resource of the area. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

The second application in a midlands location is Gaybrook Co. Westmeath which in May 2011 saw An Bord Pleanála uphold the decision of Westmeath County Council to refuse permission for nine turbines (of hub height 85 metres and rotor diameter 100 metres) at Gaybrook. 6.5 km south of Mullingar and 3.5 km east of Lough Ennell (Ref: 25.237728) based on the following reason:

The site of the proposed wind farm development is located in the vicinity of Lough Ennell, in an area of good quality, small scale landscape, containing the remnants of

18/19th century demesnes of particular significance in terms of amenity, tourism and heritage. The area also contains a large number of new houses. It is the policy of the planning authority to assess any development proposals in areas of demesne landscape according to best practice guidelines for historic landscapes. It is considered that insertion of a wind farm into this landscape would constitute a dominant and obtrusive feature in the area, which would interfere with the character of the landscape which it is necessary to preserve. Furthermore, having regard to the statements in the current Westmeath County Development Plan 2008-2014, generally advocating accommodation of wind farms in the extensive cut-over peatland areas of the county and also having regard to the sensitivities of the area and its environs, it is considered that the proposed development, notwithstanding its location in an area of "medium capacity" in the Wind farm Capacity Map of the said Development Plan, would not be in accordance with the overall development objectives of the current County Development Plan. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

It is submitted that these considerations are relevant to much of the Maighne area.

8.0 European Landscape Convention

This proposal highlights Ireland's failure to implement and comply with the obligations of the European Landscape Convention (ELC) which was signed into force by thirty member states of the European Council in Florence, Italy on 20 October 2000. In the convention it was noted that the **'protection, management and planning'** of landscape can aid in job creation, cultivating and maintaining local identity, achieving unity and cooperation between member states, human well-being, quality of life, and responsibility. Furthermore the concept of 'landscape' now represents natural, rural, urban, peri-urban, outstanding, every day and blighted landscapes. Under the Planning and Development Act 2010 landscape has the same meaning as it has in Article 1 of the ELC.

Under the convention, it not enough to consider landscapes which are simply outstanding or beautiful as, unlike many past attempts to create a suitable landscape strategy, the ELC does not stick to the traditional methods of protectionism; rather, it sets a requirement to survey, record and understand the everyday landscape. It is considered that Ireland has failed to comply with the Convention. Most notably, Ireland has failed to put in place the implementation measures set out in Article 6E of the Convention:

No proper national legislation, policy or guidelines have been produced by the State to respond to the ELC. Whereas local authorities have placed certain designations on landscapes as a result of Section 10 the Planning & Development Act 2000, as amended, this very discretionary and largely fragmented across local authorities, often with the subjective influences of vested interests instead of the common good and in the interest of complying with the ELC. The provisions in the 2000 Act for Landscape Conservation Area designation have not been used. This has being highlighted by the refusal of Meath County Council to designate the Tara-Skryne Valley area as a Landscape Conservation Area, following a Heritage Council proposal.

The State has failed to set a clear methodology for how landscape should be assessed, protected and managed. With no more than vague policies, and lacking legislative tools, it is difficult to guide the process. Local authorities have varying landscape policies in Development Plans which are then systemically undermined in the cumulative sprawl of individual application consents. With the failure to comply with the ELC, the applicant has been left with no basis to provide information the impact of the proposal on the landscape.

9.0 Residential Amenity Impact

This proposal has significant and varying impact of a large number of dwellings within 1km and longer distances from proposed turbine sites. Unlike the general pattern of towns and villages on the European continent, ribbon development in Ireland has resulted in lack of clearly defined settlement edges. However, even if a reduction in turbine numbers were to be made to reduce impact on urban and village clusters, the extent of turbine impact on ribbon development and dispersed housing would be as significant.

Fifty years of Irish planning policies have promoted the profligate dispersal of settlement towards single rural dwellings, and a lack of boundary definition to town and villages resulting in scattered linear road front development. Notwithstanding the fact that this pattern of development is socially, economically and environmental unsustainable, particularly with respect to oil dependence, greenhouse gas emissions, water quality, social equity, human health, and, critically, efficient Exchequer investment in infrastructure and services, it is likely that it will continue at least in the short-term. A most recent Forfas Statement on Energy confirms this, stating:

'Ireland has opted for a policy of land-use planning which has resulted in the sprawl of low-density housing developments. This approach, while socially popular, is not sustainable from an energy, environmental, climate change or quality-of-life perspective'

This significantly limits future infrastructure as well wind turbine and electricity grid development. Ireland's now fifty year-old Planning and Development Act regime has resulted in much of the national housing stock developed in a piecemeal basis on road front sites outside town and village speed limits.

The negotiation of turbine location options with landowners in this in proximity to houses and villages has generated major conflict within local communities. Landowners signing up contracts for sites are being seen to make large financial gain while adjoining landowners and residents are left with vague promises of benefit to a 'community fund'. Apart from amenity impact, health concerns are being raised by concerned residents. This raises the wider need to have clear guidelines on the proximity of turbines to houses and ratios applicable to the relevant hub height.

It is submitted that the significant development of single rural dwellings has occurred in the surrounding area of the proposed site within the last few decades, which has adversely affected the areas ability to accommodate wind energy infrastructure.

10.0 Farming and Bloodstock impact.

There will be significant concerns raised by farmers and blood stock holders on landholding contiguous to proposed turbine sites but who are not part of any landowner agreements. The issue of farming and bloodstock impact needs to be addressed and evaluated.

11.0 Cultural Heritage Impact

This application would have a potential impact across a wide area of landscape. There is a need to consider impact on both the Royal Canal and Grand Canal. Also requiring particular consideration Natura 2000 sites and proposed Natural Heritage Areas.

Closer to the proposed turbine site the impact on the setting of archaeological monuments and protected structures needs to be assessed including country house demesnes. However the impact on designed landscapes which form part of the setting of protected structures needs also to be considered. The County Westmeath Gaybrook decision is relevant to the consideration of cultural

heritage since this cited the impact on demesne landscape even though the house has been demolished.

12.0 Conclusions

Any future Irish wind energy proposal needs to be plan led and not developer led. There is a need to meaningfully rather than tokenistically use the framework provided by the Strategic Environmental Assessment (SEA) Directive to identify the national capacity for location of wind energy for export turbines, and their optimum siting. This proposal is inappropriately developer led acting without any proper national and location selection strategy.

Yours sincerely,

Ian Lumley
Built Environment & Heritage Officer
builtenvironment@antaisce.org



BirdWatchIreland
protecting birds and biodiversity

Unit 20 Block D
Bullford Business Campus
Kilcoole
Greystones
Co. Wicklow
Ireland

t: +353 1 281 9878
e: info@birdwatchireland.ie
w: birdwatchireland.ie

Patron
Michael D. Higgins
President of Ireland

Éarlámh
Micheál D Ó hUigínn
Uachtarán Na hÉireann

Tina Raleigh,
Fehily Timoney & Company,
Core House,
Pouladuff Rd.,
Co. Cork.

Your Ref: Q:\LE14\731\01/Let001/DMC/MT

Our Ref: 03.11.14KE

18-12-14

RE: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Dear Ms. Raleigh,

Thank you for your consultation regarding this proposed wind farm. BirdWatch Ireland is supportive of the development of low carbon energy sources in Ireland, such as wind energy and is working in a proactive way in order to ensure energy targets can be met, in addition to obligations to protect and enhance important areas for wildlife under the EU Nature Directives¹.

Given the potential for wind energy developments to have direct, indirect and cumulative impacts on bird populations, BirdWatch Ireland would have concerns over proposed developments with potential for significant impacts on bird populations both within designated sites and in the wider countryside. We would have particular concern for priority species².

We have a number of concerns over this proposed development including:

- The proximity of some of the proposed developments (western locations Ballinla and Clonbullogue) to a nearby site of importance for breeding wader species. This site also holds regular flocks of Whooper Swans (an Annex I species as listed under the EU Birds Directive).

¹ EU Nature Directives [Birds Directive (79/409/EEC) & Habitats Directive (92/43/EEC), Environmental Impact Assessment (EIA) Directive (85/337/EEC as amended by 97/11/EC), and Strategic Environmental Assessment (SEA) Directive (Directive 2001/42/EC).

² Colhoun K. & Cummins, S. 2013 Birds of Conservation Concern in Ireland 2014-19. Irish Birds 9:523-544



Directors: K O'Byrne (Chairman), J Cromie, J O'Halloran, B Lavery, P. Moore, JB Peart, E Sides, J Wilson

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BirdWatchIreland *protecting birds and biodiversity*

Unit 20 Block D
Bullford Business Campus
Kilcoole
Greystones
Co. Wicklow
Ireland

t: +353 1 281 9878
e: info@birdwatchireland.ie
w: birdwatchireland.ie

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Michael D. Higgins
President of Ireland

Éarlámh
Micheál D Ó hUigínn
Uachtarán Na hÉireann

- Given the proximity of this proposed development to the currently operational Mount Lucas Wind Farm and to the Yellow River Wind Farm which has also been granted permission in this area, we would have serious concerns over the potential for cumulative impact.

We would recommend that a detailed review is undertaken concerning the potential impacts of wind energy developments on the bird species relevant to this site and its surrounding areas, in addition to appropriate surveys to determine species utilization of the area, including flight-lines. Potential impacts of the proposed development alone should be considered in addition to the potential cumulative impacts from all existing, approved and/or proposed developments in the area. Furthermore, should the development go ahead we would recommend post construction monitoring to include vantage point surveys and carcass searches.

We welcome the opportunity to discuss this proposal and our comments with you further. We would also appreciate if you could let us know if or when this proposal enters the planning process and if you would forward us a copy of the survey results and the Ecological Impact Assessment reports for this proposed wind farm when they become available. Digital copies are welcomed (Email: casework@birdwatchireland.ie).

Yours sincerely,

Karen Carrigy

Casework Officer

Policy & Advocacy Team



PARTNER

Directors: K O'Byrne (Chairman), J Cromie, J O'Halloran, B Lavery, P. Moore, JB Peart, E Sides, J Wilson

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Forest Service Policy on the Granting of Felling Licences for Wind Farm Development

[Effective from 3rd June, 2011]

Where a developer intends to construct a wind farm within a forest, or partially within a forest, or that will affect a forest environmentally or that will require tree felling, it is extremely important that the developer consults the Forest Service at the earliest possible stage of the project. This approach may help to develop a collaborative approach that will ensure that all forestry issues are identified and mitigated at the earliest opportunity.

1. Only Limited Felling Licences (LFL) should be applied for and will be issued for wind farms. No General Felling Licences (GFL) will be granted. GFL's carry an obligatory replanting condition, whereas LFL's provide flexibility with regard to the imposition of a replanting condition and the extent of such a condition. Two LFLs must be applied for – 1) to cover the turbine bases, the roads, buildings, etc; 2) to cover the area on which 'turbulence felling' will take place, if required.

NOTE: Where a person intends to fulfil the replanting condition of a Limited Felling Licence by planting an area other than the area felled under the licence, Section 41(1)(a)(i) of the Forestry Act, 1946, stipulates that the licensee must own the alternative site at the date of the grant of the licence.

Turbulence felling is deemed to be felling in the vicinity of the turbines, the purpose of which is to avoid turbulence that can be created by the forest canopy and that can affect the performance and efficiency of the turbines. Turbulence felling may be allowed in certain cases, at the discretion of the Minister and subject to replanting requirements as outlined at section 10 below.

2. As it is Forest Service policy to facilitate wind energy as much as possible within the requirements of sustainable forest management, please note the following **as guidance**:

- i. The felling required to facilitate the turbine bases, the roads, buildings, etc. will not be considered turbulence felling.
- ii. A felling coupe is defined for this purpose as a contiguous or adjacent area, any part of which is felled in a 2 (calendar) year period. As a felling coupe of less than 20 hectares is usually consistent with sustainable forest management, where a cumulative total area of 20 hectares or less is adjacent to one or more turbines and it is proposed to fell this area in accordance with normal good forest practice, such felling will not be considered turbulence felling.
 - In the context of this section 2(ii), the felling required to facilitate the turbine bases, the roads, buildings, etc. will not be considered to be part of the 20 hectare limit. That is to say, there can be a felling of up 20 hectares in the wind farm development plus the area for the bases, etc., e.g. a 20 hectare felling plus, say, 4 hectares for the bases, etc.
 - The granting of a licence for a felling of 20 hectares or less will be subject to the normal checks carried out by the Forest Service in respect of silvicultural, environmental and landscape considerations, etc.
 - A licence granted in respect of such an area of 20 ha or less will contain a replanting condition, as normally imposed by the Forest Service for such felling. The replanting condition may require the replanting of slow growing species. There will be no requirement for additional land to be planted; the area to be planted will be equal to the area felled (e.g. if 16 hectares are felled, then the replanting condition will require planting of 16 hectares).
 - Excluding the area for the turbine bases, etc. from the limit, the 20 hectare limit specified in this section is a total limit for the entire wind farm development. The limit is not interpreted as 20 hectares per turbine or any other interpretation that is deemed by the Minister to be in excess of a total of 20 hectares per wind farm development.
 - Subsequent to a licence being granted for 20 hectares or less, any cumulative felling applied for above the 20 hectare limit will be considered to be turbulence felling. This will be deemed to be 'project splitting' and, therefore, the original area of 20 hectares or less that was licensed will also then be regarded as turbulence felling. For example, if 20 hectares are felled in the first year and a further 12 hectares of felling is applied for in say year 3, then

the additional 12 (if granted) and the original 20 hectares will be treated as 32 hectares of turbulence felling. The rules for turbulence felling will then apply to all 32 hectares.

See the scenarios outlined in section 10 below.

3. As standard, areas cleared for turbine bases, access roads, and any other wind farm related infrastructure must be replaced by replanting at an alternative site. Under the Forestry Act, 1946, the felling licence applicant must own the alternative site at the time the licence is granted. The alternative area will not be eligible for any grants or premiums from the Forest Service.

Please note that any alternative replanting area(s) must be formally approved by the Forest Service before a felling licence is granted. Consequently, in order to avoid any undue delays in the granting of a licence, the proposed alternative replanting site(s) should be submitted for approval as early as possible, ideally at the same time as the felling licence application is submitted.

Approval must be applied for using the Afforestation Scheme application Form (Form 1 - Application for Preplanting Technical Approval). As no grants or premiums are payable on these sites it should be stated on the form that only technical approval and not financial approval is required.

4. In line with general Forest Service policy, where grant-aided forestry is to be used for wind farm development, any grants and premiums that were paid by the Forest Service in respect of the areas felled for the turbine bases, roads, and infrastructure must be refunded. (The refunding of grants applies to the areas licensed under LFL "1" above.)
5. Notwithstanding any requirement for the wind farm developer to produce an Environmental Impact Statement (EIS) in respect of the development and the desirability of scoping the impact of tree felling/replanting proposals in an EIS, when felling licence applications are made, the Forest Service may require the developer to report on the potential loss of soil and biomass CO₂, and the reduction in productivity of the forest area associated with different wind farm, forestry management, and landscape plans. Potential impacts to be reported on and assessed may also include stability of the site,

water quality, landscape issues, habitats, archaeology and other issues that may be deemed appropriate by the Forest Service.

6. When possible, both Limited Felling Licences should be applied for at the same time. This is advisable as developers should be aware that it is possible, for example, that the LFL for the bases, and roads, etc. could be granted, while the LFL for the area of turbulence felling could be refused.
7. The required felling licences should be applied for as early as possible. This will minimise delays by giving the Forest Service timely notice of the full felling requirements. It also lessens the risk of commitments being made by the developer before felling licences are granted. However, it should be noted that under the Forestry, 1946, the validity of a Limited Felling Licence is currently limited to 2 years.

As soon as planning permission is granted for the development by the local authority or Bord Pleanála, a copy of the full planning permission should be submitted to support the felling licence application(s).

8. If turbulence felling is necessary it should be kept to the absolute minimum required.
9. Where turbulence felling is necessary, replanting with slow growing species may be made a condition of the LFL. The approach may allow premature clearfell with replanting using slow growing species; lodgepole pine or another suitable species should be used, with clearfell again once the crop is 10 metres high. The height of 10 metres is a guideline; the height is selected on turbine manufacturers' specification and loss of turbine efficiency.
10. In light of the consideration that the effect on the forest estate should be kept to a minimum and the principal of retaining healthy and permanent forest, the Forest Service requires the establishment of an area that will provide the same wood production and 'climate change benefit' over the long term plus an additional 10% to allow for the increase in soil carbon emissions at afforestation and the loss of potential carbon sequestration due to the proposed method of forest management.

To this end, as standard, the requirement will be for replanting on a hectare for hectare basis for the footprint of the turbines and the other infrastructure developments. In the

case of the area to undergo turbulence felling, the requirement will be for replanting on a hectare for hectare basis plus an additional 10% to allow for the increase in soil carbon emissions at afforestation and the loss of potential carbon sequestration due to the proposed method of forest management. See **example 1** below.

However, where the proposed felling is less than 20 hectares (excluding the felling in respect of the bases, roads, buildings, etc.) as stated in section 2 above, there will be no requirement to plant an additional 10% for turbulence felling. See **example 2** below.

Example 1:

In the case of a 200 ha plantation, where say 15 ha will be for turbine placement, other buildings and roads, etc., and 100 ha will undergo turbulence felling, the requirement would be:

- replanting on 15 ha for the turbines, etc.;
- replanting on 100 ha for turbulence felling;
- replanting on 10 ha (10% of 100) for soil carbon emissions at afforestation and the loss of potential carbon sequestration due to the proposed method of forest management.

Total replanting in this example = 125 ha, with 100 being on the site of the turbulence felling; and the 25 ha balance being on alternative land owned by the licence applicant at the time the licence is granted.

Example 2:

In a 200 ha plantation, where say 15 ha will be for turbine placement, other buildings and roads, etc., and an additional felling of say 18 ha (i.e. Less than 20 ha) is sought, the requirement would be:

- replanting on 15 ha for the turbines, etc.;
- replanting on 18 ha for the additional felling;

Total replanting in this example = 33 ha, with 15 ha being on alternative land owned by the licence applicant at the time the licence is granted.

Example 3:

In a 200 ha plantation, where say 15 ha will be for turbine placement, other buildings and roads, etc., and an additional felling of say 18 ha is initially sought, but an additional area of say 12 ha of felling is sought within the next few years, then the requirement would be:

- replanting on 15 ha for the turbines, etc.;
- replanting on 18 ha for the additional felling;
- replanting on the additional 12 ha
- replanting on 3 ha which is 10% of the turbulence felling, i.e., 10% of 30 ha (i.e. 18 ha + 12 ha) for soil carbon emissions at afforestation and the loss of potential carbon sequestration due to the proposed method of forest management.

Total replanting in this example = 48 ha, with 30 being in respect of the turbulence felling; and the 18 ha balance being on alternative land owned by the licence applicant at the time the licence is granted.

11. In exceptional circumstances a contribution condition can be imposed on a felling licence instead of a replanting condition. Where, for any reason, a contribution condition is imposed, the cost of the contribution condition should be calculated on the area as calculated at policy section 10 above. That is to say, the area on which the calculation is based will contain an additional 10% of the turbulence felling area.

By way of an indication, the contribution amount will equal the cost of acquiring good quality planting land (i.e. at the upper levels of current market prices); the cost of the replacement trees; the planting operation cost; fencing costs; and a 10-year maintenance cost. An additional 10% of the total cost of the aforementioned to cover administration costs, etc. if grants and premiums were paid in respect of the land in question.

If an area is to be licensed for turbulence felling, there will be an additional 10% added to the cost calculated above to allow for the increase in soil carbon emissions at afforestation and the loss of potential carbon sequestration due to the proposed method of forest management, as under Section 10 above.

Ms Tina Raleigh
Fehily, Timoney & Co.
Core House
Pouladuff Road
Cork
3rd December, 2014

Re: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Dear Ms Raleigh,

I refer to your recent correspondence concerning the above.

I would like to say that if the proposed development will involve the felling or removal of any trees, the developer must obtain a felling license from this Department before trees are felled or removed. A Limited Felling Application (FA1) can be obtained from Felling Section, Forest Service, Department of Agriculture, Food and the Marine, Johnstown Castle Estate, Co. Wexford; Tel: 053-9160200, or you can download an application at: <http://www.agriculture.gov.ie/forests-service/tree-felling/tree-felling/>

In addition, if the proposed development will involve the felling or removal of a grant aided forestry plantation, the written consent of the Minister must be obtained before the forest can be removed. It may also be necessary to *repay all grant monies paid in respect of the area removed from the grant aided forestry plantation.*

The developer should take note of the contents of the **Tree Felling Policy for Wind Farm Development** which can be downloaded at: <http://www.agriculture.gov.ie/forests-service/tree-felling/tree-felling/>

It should be noted that deforestation is a project to which the provisions of Article 4(2) of the Environmental Impact Assessment Directive (Council Directive 85/337/EEC) applies, being one of the projects listed in Annex II of that Directive.

Where the felling of forest areas is proposed, the following additional information should be provided in the EIS:

The Project

- Reasons and rationale for the proposed felling (including the timing of the felling and the extent of the felling) and any subsequent replanting. This to include a justification/rational for the pre-maturity of the felling, where applicable, in comparison with the accepted rotation lengths for the species and yield classes.
- Alternatives explored e.g. turbine heights, alternative locations of turbines etc.
- Plans in terms of rotation length for the succeeding rotation.
- Total proposed felling associated with the development i.e. area, species, yield class, age at the proposed felling time, normal rotation length. These data may be supplemented by provision of aerial photography, Forest Inventory and TRC data including fell year maps for the areas concerned. Maps of all known archaeological monuments together with maps of SAC's/SPA's, NHA's pNHA's in the locality should also be furnished.
- Ecological survey of the proposal, this to include an assessment of the potential impact on any Annex 4 species per the Habitats Directive.
- Evidence and results of stakeholder consultation and consultations with Regional Fisheries Board and County Council on the project.
- Planned phasing of such felling.
- Replanting plan for the areas concerned detailing the year of replanting and spp. Proposed, ground preparation proposed and fertiliser application. These data may be illustrated on maps.
- Areas planned to be felled but not planned to be replanted.
- Soil type(s) – may be illustrated on maps.
- The catchments (by the lowest order stream) and/or the Water Bodies indicating the % catchment (upstream of the lowest activity point) by activity type (clearfelling and replanting) and/or the % of the Water Body by these activity types.
- Report on the risk assessment/risk categorisation (per the Water Framework Directive) assigned to each Water Body concerned.
- Screening to address potential impacts on SAC's/SPA's per the EU Habitats Directive/Regulations.
- Landscape designation per the County Development Plan.
- Please submit details of any water sampling results carried out to date.
- The forest carbon balance of the proposal – this to take cognisance of the forest carbon balance of the proposal, including the future forest management, compared with the potential forest carbon balance if the forest were to be managed in the conventional manner.

- The overall carbon balance of the proposal.

Cumulative Effect

Data (includes no of hectares, species, planting year, yield class, soil type and water catchment/water body indicating the % of water catchment/water body by activity) and maps detailing areas (include felling areas associated with wind farm) where:

- Tree felling is proposed in the next five years.
- Felled areas in the past 4 years in the locality.
- Areas replanted in the past 4 years.
- All areas in receipt of fertiliser in the past 4 years.
- All proposed road developments and standards.

- All drainage works associated with all activities on the site.
- Provision of a Forest Landscape Design Plan for the entire project area by a suitable qualified Landscape Architect with experience in forestry. This plan should take account of the impact of any felling / replanting proposals already licenced in the area and any areas planned to be felled/replanted in the next 5 years.

Potential Impacts/Mitigation:

Data and the proposed

Data on potential agricultural/forestry impacts and proposed mitigation and monitoring measures to be adopted in respect of the following:

- likely impacts during the site preparation, excavation and erection phases
- soil stability (including landslides)
- water quality (particularly with regard to sedimentation and eutrophication)
- landscape
- ecology/habitats
- monuments
- likely impacts when the development is complete (examples of impacts include noise and shadow flicker)

- The economic impact due to the reduced forest rotation (where applicable) and on planned future rotations.

I suggest that your firm also considers the likely impact, if any, of the proposed development on agriculture/agricultural activities in the locality as part of the Environmental Impact Assessment.

Aspects that should be considered include the following:

- Likely impacts during the site preparation, excavation and erection phases (examples of impacts include impact on water quality, risk to soil stability).
- Likely impacts when the development is complete.

Yours sincerely,

Joan Stone
Climate Change Section
Dept. of Agriculture, Food & the Marine
Johnstown Castle Estate
Wexford
(053) 91 70348

Ms Tina Raleigh
Fehily, Timoney & Co.
Core House
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Aspects that should be considered include the following:

- Likely impacts during the site preparation, excavation and erection phases (examples of impacts include impact on water quality, risk to soil stability).
- Likely impacts when the development is complete.

Yours sincerely,

Joan Stone
Climate Change Section
Dept. of Agriculture, Food & the Marine
Johnstown Castle Estate
Wexford
(053) 91 70348



An Roinn
Ealaíon, Oidhreachta agus Gaeltachta
Department of
Arts, Heritage and the Gaeltacht

Our Ref: **G Pre00401/2014**
(Please quote in all related correspondence)

12 December 2014

Fehily Timoney & Co
Core House
Pouladuff Road
Cork
Via email to: chris.cullen@ftco.ie

Re: Proposed Maighne windfarm in counties Kildare, Meath & Offaly

A chara

On behalf of the Department of Arts, Heritage and the Gaeltacht, I refer to correspondence in connection with the above.

Outlined below are heritage-related observations from this Department under the stated heading(s).

Archaeology

The Department has examined the Maighne Wind Farm: Environmental Impact Statement-Scoping Report (October 2014), in particular Section 4:17 Archaeology, Architecture and Cultural Heritage Section, which has addressed the issues in a comprehensive manner. However, the Department would recommend that Section 4:17 should include an assessment of the visual impact of this development on the World Heritage Site at Brú na Bóinne, County Meath, and its impact on Ireland's World Heritage Sites on the Tentative list (2010). Some of these are located in the general midlands area of this proposed development, including The Monastic City of Clonmacnoise and its Cultural Landscape and The Royal Sites of Ireland at Dún Ailinne and Hill of Uisneach.

The proposed development is large in scale and concentrated with up to 55 wind turbines with an optimal performance blade tip height of 169m and their associated ancillary in counties Kildare, Offaly and Meath. In the townlands listed for Co. Kildare alone there are for instance 15 Recorded Monuments in Timahoe East/West tds.; 8 Recorded Monuments in Drehid td. and 3 Recorded Monuments in Derrybrennan.

Architectural Heritage

Architectural Heritage is considered in Section 4.17 of the scoping document and refers to the assessment as comprising both a proposed desk study and a field walkover survey. The Department is in agreement that both need to be carried out as architectural heritage extends beyond what is listed for protection in local authorities' records of protected structures and other records including the surveys of the NIAH and this Department's RMP. Attention is drawn to the 'Department's Architectural Heritage Protection Guidelines for Planning Authorities' (2004/2011), in particular Chapter 13, wherein is stated (at 13.2.1) 'the attendant grounds of a structure are lands outside the curtilage of the structure but which are associated with the structure and are intrinsic to its function, setting and/or appreciation'.

The Department agrees with the proposal to carry out 'a review and interpretation of aerial photographs to be used in combination with historic mapping to map potential cultural heritage assets' and with the proposal in assessing potential impacts to include indirect impacts such as on

historic character, setting and visual amenity of heritage assets. The Department considers that the impacts arising both during the construction and operational phases of the wind farm will need to be assessed.

Nature Conservation

This Department previously submitted EIS and appropriate assessment (AA) scoping comments on 25th June 2012, including the need for licenses where there are impacts on protected species (Our ref G Pre00199/2012). In addition the project proponents consulted with staff of the birds' unit and met regional and Dublin based staff of the National Parks and Wildlife Service of this Department on a number of occasions. The previous comments, and most of the meetings, related to a larger project. This proposed project in counties Kildare and Meath, which is to connect to the Irish grid, was previously part of this larger project where the power produced was to be exported. Any comments in this submission are in addition to previous comments made by this Department on both this project and the larger project where applicable.

This Department notes that there is one other project taken out of the larger project, the Emlagh windfarm, currently with An Bord Pleanála, which will be connected to the Irish grid. The EIS and AA screening/Natura Impact Statement (NIS) should consider these and other proposed windfarm projects when addressing the issue of cumulative impacts. Details of contracted windfarms not yet built are available on the Eirgrid website which could aid in determining any potential cumulative impacts.

EIS Scoping Report

Appropriate Assessment

The EIS scoping has not mentioned appropriate assessment. In accordance with article 6.3 of the Habitats Directive (Council Directive 92/43/EEC), this project should be subject to appropriate assessment (AA) screening and if necessary a NIS should be produced. Please refer to our previous scoping comments on AA. Please note however that the guidance documents referred to in that submission have been clarified by CJEU case law which should be consulted. For example case C-258/2011 on the N6, Galway City Outer Bypass and the Briels Case, C-521/12.

EIS Scoping general

The EIS should include the impacts of construction, operation and decommissioning on the Natural Heritage. The EIS scoping report does not appear to mention decommissioning in the ecology section.

EIS scoping report and bats

The EIS scoping covers the issue of bat surveys. If any trees or hedges along the haul routes need to be removed, or any bridges along the haul routes for turbine parts will require strengthening, which may involve grouting or otherwise infilling of cracks and crevices, then these should be included in the bat surveys.

Bird Surveys

Survey methodologies should follow best practice and if necessary be modified to reflect the Irish situation. Two full years of bird surveys is normally considered to be necessary. When survey results are being presented in an EIS and NIS it is important that best practice is followed and that the full survey methodology, including dates and times, is detailed. Results for species need to be referenced back to the overall populations and their dynamics as, in some cases, even a small risk to a population of a species could be considered significant.

Construction Management Plans

Complete project details including construction management plans (CMPs) need to be provided in order to allow an adequate EIS and appropriate assessment to be undertaken. Applicants need to be able to demonstrate that CMPs and other such plans are adequate and effective mitigation, supported by scientific information and analysis, and that they are feasible within the physical constraints of the site. The positions, locations and sizes of construction infrastructure and mitigation, such as settlement ponds, disposal sites and construction compounds, may significantly affect European and other designated sites, habitats, and species in their own right and could have an effect for example on drainage, water quality, habitat loss, and disturbance. If these are undetermined at time of the assessment, all potential effects of the development on the site are not

being considered. This Department understands that it may not be possible to have final cable route details until a grid connection agreement is given. However, if applicants are not in a position to decide the exact location and details at time of application, then they need to consider the range of options that may be used in their assessment so that all issues are covered.

Monitoring

This Department recognises the importance of pre and post construction monitoring, such as recommended in Drewitt et al. (2006), and Bat Conservation Ireland (2012). The applicant should not use any proposed post construction monitoring as mitigation to supplement inadequate information in the assessment. Please refer to Circular Letter PD 2/07 and NPWS 1/07 on this issue. This can be downloaded from the Department's website at <http://www.npws.ie/media/npws/publications/circulars/media.6683.en.pdf>

The EIS process should identify any pre and post construction monitoring which should be carried out. The post construction monitoring should include bird and bat strikes/fatalities including the impact on any such results of the removal of carcasses by scavengers. Monitoring results should be made available to the competent Authority and copied to this Department. A plan of action needs to be agreed at planning stage with the Planning Authority if the results in future show a significant mortality of birds and/or bat species.

Turbine specification

Should the exact height and rotor diameter of the turbines to be used not be known at EIS stage then the assessment of impacts must be applicable to a variety of turbine heights and rotor diameters which could be used. This should be made clear in the EIS.

References

Bat Conservation Ireland (2012) Wind Turbine/Wind Farm Development Bat Survey Guidelines. Version 2.8 December 2012.

Drewitt, Allan L. and Longston Rowena H. W. (2006) Assessing the impacts of wind farms on birds. Ibis 148, 29-42.

The above observations and recommendations are based on the papers submitted to this Department on a pre-planning basis and are made without prejudice to any observations that the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority/ies, in his role as statutory consultee under the Planning and Development Act, 2000, as amended.

You are requested to send the acknowledgement to this letter and any further correspondence to this Department's Development Applications Unit at manager.dau@ahg.gov.ie (team monitored); if this is not possible, correspondence may, alternatively, be sent to:

The Manager
Development Applications Unit
Department of Arts, Heritage & the Gaeltacht
Newtown Road
Wexford

Is mise, le meas



Muiris Ó Conchúir
Development Applications Unit
Tel: 053-911 7387

Sinead Timoney

From: Catherine Madden <Catherine.Madden@defence.ie>
Sent: 17 December 2014 10:02
To: Maighne Windfarm Scoping
Subject: Proposed Maighne Wind Farm

Your ref: Q:\LE14\731\04/Let010/TPR/MG

Hi Tina,

I refer to your letter dated 8th December 2014 in connection with above mentioned wind farm. Based on the information provided and assuming that the routes connecting to the national grid are underground, the Department of Defence has no observations to make.

Regards,
Catherine.

Catherine Madden
Property Management Branch
Department of Defence
Station Road
Newbridge
Co Kildare
045 492461

Fógra faoi Rúndacht: Tá an ríomhphost seo agus aon iatán a ghabhann 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/WebSite.nsf/Publication+ID/1D378F944CAEE1D880256EBE00401CEB

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Be Winter Ready - www.winterready.ie

Sinead Timoney

From: Catherine Madden <Catherine.Madden@defence.ie>
Sent: 21 November 2014 15:31
To: Maighne Windfarm Scoping
Subject: Proposed Maighne Wind Farm

Hi Tina,

On receipt of your letter dated 30th October 2014 and Scoping Report, in connection with the above wind farm, I forwarded them to the Air Corps for their observations/comments. They have not come back to me yet but have advised me that they are still in discussions and will have comments/obs on this report.

Please do not hesitate to contact me should you require further information.

Regards,
Catherine.

Catherine Madden
Property Management Branch
Department of Defence
Station Road
Newbridge
Co Kildare
045 492461

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Be Winter Ready - www.winterready.ie

Sinead Timoney

From: Catherine Madden <Catherine.Madden@defence.ie>
Sent: 21 November 2014 16:25
To: Maighne Windfarm Scoping
Subject: FW: Proposed Maighne Wind Farm

Hi Tina,

Based on the information supplied and following consultation with the Air Corps, they have now submitted the following comments:

"In respect of the consultation on the scoping report, it might be appropriate to include under 4.18.2 Consultation with the Department of Defence/Air Corps

In 4.18.4 – additional potential impacts are

Aviation activity may have to be constrained as a consequence of wind energy developments (CAA CAP764), While the IAA consultation document on Land Use Planning and Offshore Development points to impacts such as

- Creation of choke points in uncontrolled airspace;*
- Turbulence affecting smaller aircraft and helicopters;*
- Cumulative effect of multiple developments"*

Regards,
Catherine Madden,
Property Management,
Department of Defence.

From: Catherine Madden
Sent: 21 November 2014 15:31
To: 'maighnewindfarmscoping@ftco.ie'
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Sinead Timoney

From: Eoin McDonnell <Eoin.McDonnell@failteireland.ie>
Sent: 13 November 2014 16:17
To: Maighne Windfarm Scoping
Subject: EIS for proposed Maighne Windfarm Co.s Kildare, Offaly and Meath
Attachments: EIS and Tourism Guidelines 2011.doc; ATT00001.txt

Dear Ms Raleigh,

I wish to acknowledge receipt of your recent letter to Fáilte Ireland in relation to carrying out an Environment Impact Statement for Proposed Maighne Wind Farm, Co.s Kildare, Offaly and Meath.

I attach a copy of the Fáilte Ireland Guidelines for the treatment of tourism in an EIS, which we recommend should be taken into account in preparing the EIS.

Yours sincerely

Eoin McDonnell

Fáilte Ireland | Áras Fáilte | 88-95 Amiens Street | Dublin 1 | Ireland

T: +353 (01) 884 7203 | M: 086 825 4413

W: www.failteireland.ie



Guidelines on the treatment of tourism in an Environmental Impact Statement

1. Introduction

Tourism is a significant component of the Irish Economy – estimated to employ approximately 190,000 people – and contributing over €5.3 billion in spending to the economy in 2009. The environment is one of the main resources upon which this activity depends – so it is important that the EIS evaluates whether and how the interacting impacts of a project are likely to affect tourism resources.

The purpose of this short note is to provide guidance on how these impacts can be assessed through the existing EIA process. Undertaking an EIA is governed by the EIA Advice Notes published by the EPA. These Advice Notes contain detailed guidance on how to describe and evaluate the effects arising from a range of projects, including tourism projects.

These guidelines were written with the assistance of Conor Skehan, Head of Department of Environment and Planning, Dublin Institute of Technology.

2. Tourism and the Environment

There are two interactions between tourism and the environment.

1. Impacts caused by Tourism Projects
2. Impacts affecting Tourism (e.g. the quality of a destination or a tourism activity)

Impacts caused by Tourism Projects

Tourism projects can give rise to effects on the environment. These are specifically dealt with under a number of Project Types in the Advice Notes, specifically:

12 TOURISM AND LEISURE

- a. Ski-runs, ski-lifts and cable-cars where the length would exceed 500 metres and associated developments. Project Type 20
- b. Sea water marinas where the number of berths would exceed 300 and fresh water marinas where the number of berths would exceed 100. Project Type 10
- c. Holiday villages which would consist of more than 100 holiday homes outside built-up areas; hotel complexes outside built-up areas which would have an area of 20 hectares or more or an accommodation capacity exceeding 300 bedrooms. Project Type 28
- d. Permanent camp sites and caravan sites where the number of pitches would be greater than 100. Project Type 28
- e. Theme parks occupying an area greater than 5 hectares. Project Type 29

Figure 1 The Advice Notes contain detailed descriptions on how to describe and evaluate the effects arising from a range of tourism projects.

Impacts affecting Tourism

Environmental effects of other projects on tourism are not specifically addressed in the Advice Notes. Taking account of the significance of tourism to the Irish economy a specialist topic of 'Tourism' has been prepared to facilitate a systematic evaluation of effects on this sector within the format laid down for other parts of the Environmental Impact Statement.

It is not intended that the assessment of effects on tourism should become a separate section of the Impact Statement, instead it is intended to become a specialist sub-section of the topic 'Human Beings' which is currently described in Section 2 of the Advice Notes

3. Tourism in the Existing Environment

Introduction

Visitor attitude surveys reveal that the following factors – in order of priority – are the reasons that tourists visit and enjoy Ireland:

- Beautiful scenery
- Friendly & hospitable people
- Safe & Secure
- Easy, relaxed pace of life
- Unspoilt environment
- Nature, wildlife, flora
- Interesting history & culture
- Plenty of things to see and do
- Good range of natural attractions

It is noteworthy that over half of the factors listed are environmental and that all others are related to the way of life of the people. The following describes how these factors are considered within an EIS, set out under EIA topic headings, and how they interact with tourism.

Beautiful scenery

This is covered in the '*Landscape*' Section. Particular attention needs to be paid to effects on views from existing purpose-built tourism facilities, especially hotels, as well as views from touring routes and walking trails. It is important to note that there appears to be evidence that the visitor's expectations of 'beautiful' scenery does not exclude an admiration of new modern developments – such as windfarms – which appear to be seen as indicative of an modern, informed and responsible attitude to the environment.

Friendly & hospitable people

This is not an environmental factor though it is indirectly covered under the '*Human Beings*' section of the EIS. The principal factor is the ratio of visitors to residents. This is of less significance in areas with long-established patterns of tourism.

Safe & Secure

This is not an environmental issue – though some of the factors that are sometimes covered under the heading of '*Human Beings*' – such as social inclusion or poverty – can point to likely effects and interactions.

Easy, relaxed pace of life

This is not an environmental issue though it is partially covered under '*Human Beings*' – see comments above.

Unspoilt environment

This is covered under the sections dealing with '*Landscape*', '*Flora*' and '*Fauna*' and to a lesser extent under emissions to '*Water*' and '*Air*'. In some instances traffic congestion, especially in rural areas, can be an issue, this is usually covered within '*Material Assets*'.

Nature, wildlife, flora

This is principally covered under the headings of '*Flora*' and '*Fauna*' and to a lesser extent by '*Landscape*', '*Water*' and '*Air*'. The principal issues being to avoid any effects that might reduce the health or extent of the habitats. This can occur either directly, by impinging on the site, or indirectly, through emission, that can affect the natural resources, like clean water, which the habitat depends on. It also considers effect on physical access to and visibility of these sites. Occasionally there are concerns about the disturbance or wear and tear of visitor numbers to such sites.

Interesting history & culture

This is principally covered under '*Cultural Heritage*' and, to a lesser extent, under '*Human Beings*'. The principal issues being to avoid damage to sites and structures of cultural, historical, archaeological or architectural significance – and to their contexts or settings. It also considers effect on physical access to and visibility of these sites. Occasionally there are concerns about the wear and tear of visitor numbers to such sites.

Plenty of things to see and do.

This is not an environmental issue though it is partially covered by the '*Human Beings*' section, where the tourism resources of an area are described and assessed.

Good range of natural attractions

This is covered by the '*Landscape*', '*Flora*', '*Fauna*', and '*Cultural Heritage*' sections of the EIS.

4. Project factors affecting Tourism

Introduction

Tourism can be affected both by the structures or emissions of new developments as well as by interactions between new activities and tourism activities – for example the effects of high volumes of heavy goods vehicles passing through hitherto quiet, scenic, rural areas. Tourism can be affected by a number of the characteristics of the new project such as:

- New Developments
 - Social Considerations
 - Land-uses and Activities
-
- *New Developments* - will the development stimulate or suppress demand for additional tourism development in the area? If so, what type, how much and where? Marinas, golf courses, other major sporting facilities as well as theme parks and larger conference facilities can all stimulate the emergence of new accommodation, catering and leisure facilities often within an extensive area around a new primary visitor facility. Extensive urbanisation and large scale infrastructure as well as certain processing and extractive industries all have the potential to suppress demand for additional tourism – but usually only in the immediate locality of the new development. It should be noted however, that some types of new or improved large scale infrastructure – such as roads – can improve the visitor experience – by increasing safety and comfort or can convey a sense of environmental responsibility – such as wind turbines.
 - *Social Consideration* - will the development change patterns and types of activity and land use? Will it affect the demographics, economy or social dynamics of the locality?
 - *Land-use* - will there be severance, loss of rights of way or amenities, conflicts, or other changes likely to ultimately alter the character and use of the tourism resources in the surrounding area?

Existing Tourism

In the area likely to be affected by the proposed development, the following attributes of tourism, or the resources that sustain tourism, should be described under the following headings.

Note that the detailed description and analysis will usually be covered in the section dealing with the relevant environmental topic – such as '*Landscape*'. Only the relevant finding as to the likely significance to, or effect on, tourism needs to be summarised in this section.

Context

Indicate the location of sensitive neighbouring tourism resources that are likely to be directly affected, and other premises which although located elsewhere, may be the subject of secondary impacts such as alteration of traffic flows or increased urban development. The following should be noted in particular:

- Hotels, conference centres, holiday accommodation – including holiday villages, holiday homes, and caravan parks.
- Visitor centres, Interpretive centres and theme parks
- Golf courses, adventure sport centres and other visitor sporting facilities
- Marinas and boating facilities
- Angling facilities
- Equestrian facilities
- Tourism-related specialist retailers and visitor facilities
- Historic and Cultural Sites
- Pedestrian, cycling, equestrian, vehicular and coach touring routes

Indicate the numbers of premises and visitors likely to be directly affected directly and indirectly.

Identify and quantify, where possible, their potential receptors of impacts, noting in particular transient populations, such as drivers, walkers, seasonal and other non-resident groups.

Describe any significant trends evident in the overall growth or decline of these numbers, or of any changes in the proportion of one type of activity relative to any other.

Indicate any commercial tourism activity which likely to be directly affected, with resultant environmental impacts.

Character

Indicate the occupations, activities or interests of principal types of tourism in the area. – Where relevant, describe the specific environmental resources or attributes in the existing environment which each group uses or values; where relevant, indicate the time, duration or seasonality of any of those activities. For example describe the number of guides, boats and anglers who use a salmon fishery and the duration of the salmon season as well as the quantity and type of local accommodation that is believed to be used by the anglers.

Significance

Indicate the significance of the principal tourism assets or activities likely to be affected. Refer to any existing formal or published designation or recognition of such significance. Where possible provide an estimate of the contribution of such tourism activities to the local economy. For instance refer to the number of annual visitors to a tourism attraction or to the grading of a hotel.

Sensitivity

Describe any significant concerns, fears or opposition to the development known to exist among tourism interests. Identify, where possible, the particular aspect of the development which is of concern, together with the part of the existing tourism resource which may be threatened. For instance describe the extent of a potential visual intrusion onto a site of historic significance which is the main local tourist attraction.

5. Impacts on Tourism

"Do Nothing" Impact;

Describe how trends evident in the existing environment will continue and how these trends will affect tourism.

Predicted impact;

- Describe the location, type, significance, magnitude/extent of the tourism activities or assets that are likely to be affected.

- Describe how the new development will affect the balance between long-established and new dwellers in an area and its affect on the cultural or linguistic distinctiveness of an area. For example describe the effect of a new multi-national population required for an international call-centre located in a Gaeltacht area.

- Describe how changes in patterns of employment, land use and economic activity arising from the proposed development will affect tourism, for example, illustrating how a new industrial development will diversify local employment opportunities thereby reducing the area's unsustainable over-reliance on seasonal tourism.

- Describe the consequences of change, referring to indirect, secondary and cumulative impacts on tourism; Examples can include describing how the new development may lead to a reduced assimilative capacity for traffic or water during the peak of the tourism season or how new urbanism combined with existing patterns of tourism may lead to unsustainable levels of pedestrian traffic through a sensitive habitat.

- Describe the potential for interaction between changes induced in tourism and other uses that may affect the environment – for instance increasing new tourism-related housing affecting water resources or structures

- Describe the worst case for tourism if all mitigation measures fail.

6. Mitigating adverse impact on Tourism

Describe the mitigation measures proposed to:

- *avoid* sensitive tourism resources – such as views, access, and amenity areas including habitats as well as historical or cultural sites and structures.
- *reduce* the exposure of sensitive resources to excessive environmental burdens arising from the development's emissions or volumes of traffic [pedestrian and vehicular], and/or losses of amenity arising from visually conspicuous elements of the development – for example by prioritizing visual screening of views from a hotel towards a quarry.
- *reduce* the adverse effects to tourism land uses and patterns of activities – especially through interactions arising from significant changes in the intensity of use or contrasts of character or appearance – for example by separating traffic routes for industrial and tourism traffic.
- *remedy* any unavoidable significant residual adverse effects on tourism resources or activities, for example by providing alternative access to tourism amenities – such as waterways or monuments.

Sinead Timoney

From: John Butler <John.Butler@gsi.ie>
Sent: 21 November 2014 17:09
To: Maighne Windfarm Scoping
Subject: RE: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath
Attachments: 14_264_Map1.pdf; 14_264_Map1details.pdf; 14_264_Map2.pdf; 14_264_Maighne_letter.pdf

Dear Tina,

Please find enclosed Geological Survey of Ireland response in relation to the above.

Kind Regards,

John Butler
Clerical Officer
Geological Survey of Ireland
Beggars Bush
Haddington Road
Dublin 4
Tel +353 1 678 2785
<mailto:john.butler@gsi.ie>

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Tá eolas sa teachtaireacht leictreonach seo (agus b'fhéidir sa chomhaid ceangailte leis) a d'fhéadfadh bheith príobháideach nó faoi rún. Is le h-aghaidh an duine/na ndaoine nó le h-aghaidh an aonáin atá ainmnithe thuas agus le haghaidh an duine/na ndaoine sin amháin atá an t-eolas. Murab ionann tusa agus an té a bhfuil an teachtaireacht ceaptha dó bíodh a fhios agat nach gceadaítear nochtadh, cóipeáil, scaipeadh nó úsáid an eolais agus/nó an chomhaid seo. Más trí earráid a fuair tú an teachtaireacht leictreonach seo cuir, más é do thoil é, an té ar sheol an teachtaireacht ar an eolas láithreach. Deimhnítear leis seo freisin nár aims odh víreas sa phost seo tar éis a scanadh.



Ms Tina Raleigh
Fehily Timoney & Company
Core House
Pouladuff Road
Cork.

21 November 2014

RE: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Your Ref: Q:\LE14\731\01/Let001/DMC/MT
GSI Ref: 14/264

Dear Ms Raleigh,

I would like to acknowledge receipt of your correspondence of 30 October 2014 concerning the above Windfarm Development.

The Geological Survey of Ireland has no additional comment to make, further to the attached correspondence.

Please note that Geological Heritage data can now be viewed online on the GSI Public Data Viewer at: http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple – see below.

Datasets

The Geological Survey of Ireland, as the national earth science agency, has datasets on Bedrock Geology, Quaternary Geology, Mineral deposits, Groundwater Resources, Geological Heritage, Landslides and the Irish Seabed. These comprise maps, reports and extensive databases that include mineral occurrences, bedrock/mineral exploration, groundwater, site investigation boreholes, karst features, wells and springs.

To assist with an Environmental impact Assessment (EIA), and especially the “Soils & Geology” and “Surface Water & Groundwater” parts, maps/databases are available on the GSI website under “Online Mapping”- direct link: <http://www.gsi.ie/Mapping.htm> with datasets currently available for Bedrock, Geological Heritage, Groundwater, Karst, Geotechnical boreholes, Mineral locations. More recent viewers accessible from the same link include the National Landslide Viewer, the Aggregate Potential Mapping and the Geotechnical Viewer.

Please note that Geological Heritage data can now be viewed online on the GSI Public Data Viewer at: http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple

There are two map layers under ‘Geological Heritage’:



1. 'Geological Heritage Sites Boundaries': a national dataset (one shapefile with boundary polygons) showing the nine County Geological Sites audits to date (Carlow, Clare, Kildare, Sligo; and Meath, Kilkenny, Fingal, Waterford and Roscommon, at July 2013).

County Geological Sites audit data are still available for download (as individual county shapefiles and site report pdfs; with direct links to individual reports in the most recent 5 audits) at: <http://www.gsi.ie/Programmes/Heritage+and+Planning/County+Geological+Sites+Audits/>

2. 'Geological Heritage Sites No Boundaries': a national dataset (one shapefile with buffer polygons) covering all the other counties not yet audited, indicating the provisional location/extent of sites. These sites have buffers appropriate to their type (or theme), ranging between 200m, 500m and 1000m (for the largest landscape/glacial features). These are not 'mitigation' buffers, but an attempt to encompass the extent of the particular type of site.

These will all be available to download as well in the next few weeks from: <http://www.dcenr.gov.ie/Spatial+Data/Geological+Survey+of+Ireland/GSI+Spatial+Data+Downloads.htm>

Data Updates

The 'No Boundaries' data is provisional data only. As each county's geological heritage is audited, the 'No Boundaries' data will be replaced with the audited 'Boundaries' data, **so please re-visit the viewer regularly for updates. There can also be *ad hoc* updates of individual site data at any time.**

We anticipate that with necessary funding and the ongoing good partnerships of local authorities and the Heritage Council, that it will be possible to complete the remaining county audits within the next 5 years. Please note that all the above sites are of, at least, County Geological Site (CGS) status (some are also recommended for designation as Natural Heritage Areas) and are included in the relevant County Development Plan with associated protection policy/ies.

Other comments

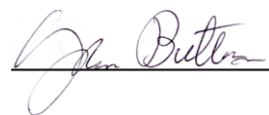
Should you identify a Geological Heritage Site with buffer within your study area, please contact Sarah Gatley, Head of the Geological Heritage and Planning Programme at sarah.gatley@gsi.ie, for further information and possible mitigation measures if applicable.

As GSI's karst dataset is far from comprehensive due to important data gaps, GSI would welcome complementary data collected during any EIA; data which would be added to the national database. If you wish to contribute data, please contact Caoimhe Hickey for details (caoimhe.hickey@gsi.ie).

At a later stage, GSI would much appreciate a copy of reports detailing any site investigations carried out. The data would be added to GSI's national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector. Data can be sent to Beatriz Mozo (beatriz.mozo@gsi.ie, 01-678 2795).

I hope that these comments are of assistance, and if the GSI can be of any further help, please contact me.

Yours sincerely,

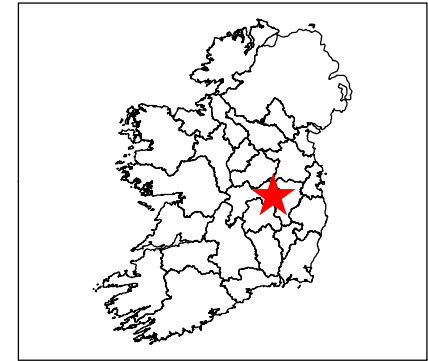


John Butler, Clerical Officer





Geological Heritage Sites E and NE Edenderry



Legend

- IGH Sites Boundaries
- IGH Sites No Boundaries

Scale: 1:110,000

Geological Heritage data is available online on the GSI Public Data Viewer at:

http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple

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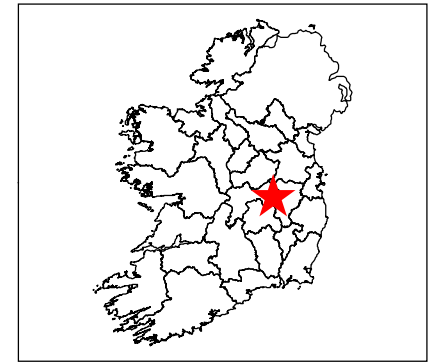
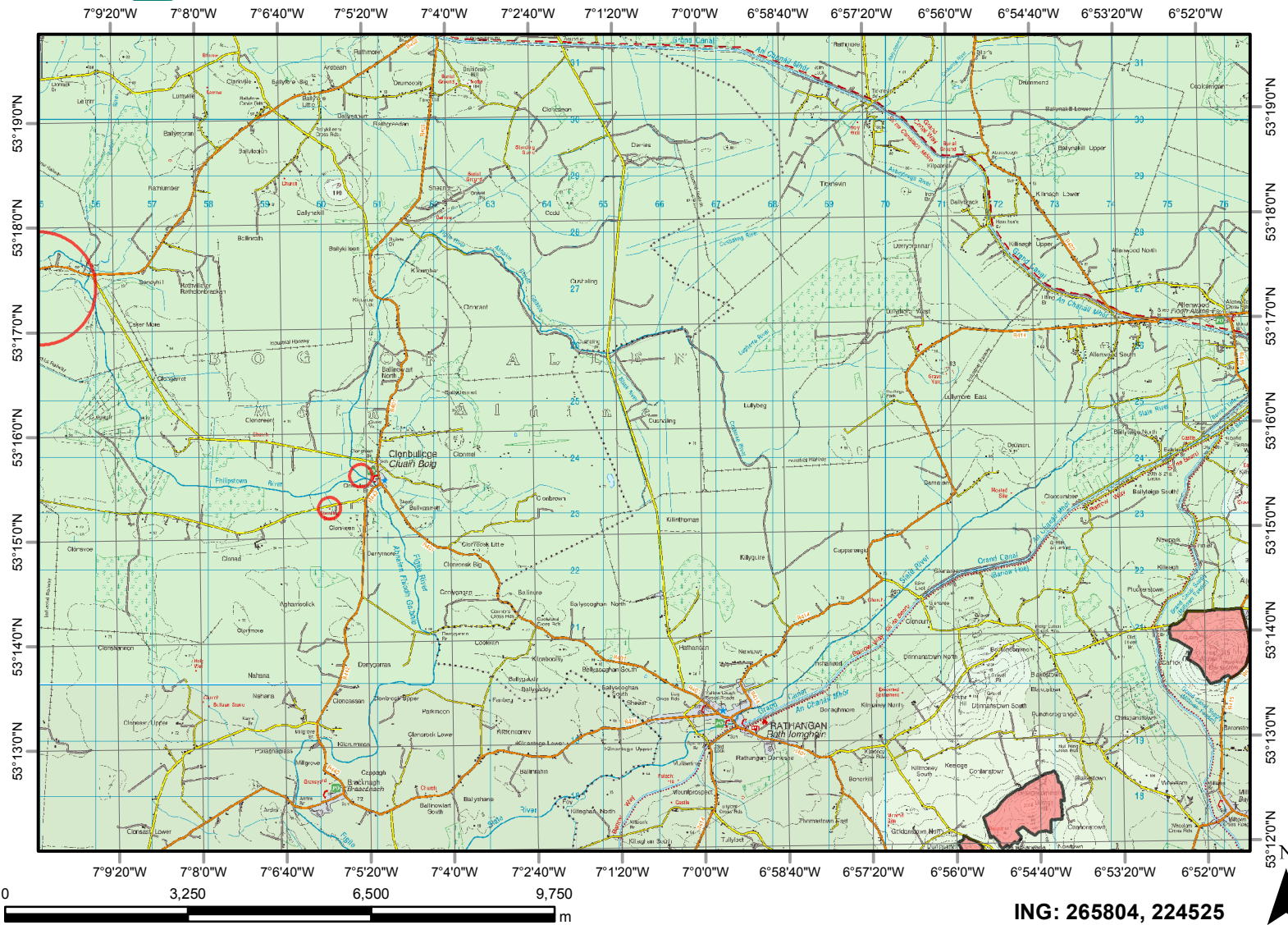
See the Geological Heritage Sites within the area and particularly the one located close to the wind farm site of Hortland which has the following details.

Geological Heritage Sites Boundaries

Site Code:	KE021	Geological Feature:	This site is located at the base of St. Peter's Hill in Dunmurraghill, approximately 6km north of Prosperous town. This warm spring is found in what appears to be a collapsed well chamber, which has only one, rather non-intact side remaining.
Site Name:	St. Peter's Well	Designation:	CGS
IGH Theme Primary:	IGH 16		
County:	Kildare		
Site Description:	Warm spring		



Geological Heritage Sites S and SW Edenderry



Legend

- IGH Sites Boundaries
- IGH Sites No Boundaries

Scale: 1:110,000

Geological Heritage data is available online on the GSI Public Data Viewer at:

http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple

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See the Geological Heritage Sites within the area and particularly those located close to the wind farm sites of Ballinla, Clonbulloge and Cloncumber. The accompanying attachment contains further details of each site.

Geological Heritage Sites No Boundaries

Site Name: Esker Bridge
IGH Theme Primary: IGH 7 Quaternary
County: Offaly
Buffer Distance (m): 1000
Critical Features: Esker
Easting IG: 255000
Northing IG: 227000
EX ASI Site: Offaly #28
Summary Description: Eskers partially modified by excavation and agriculture. A lovely example of a straight, tunnel esker which now pokes out of a sea of bog and is the only green land for miles.
Site Designation: CGS

Geological Heritage Sites No Boundaries

Site Name: Mushroom rock: Clonkeen
IGH Theme Primary: IGH 1 Karst
County: Offaly
Townlands / District: Clonkeen
Buffer Distance (m): 200
Critical Features: Mushroom rock
Easting IG: 260144
Northing IG: 223098
Summary Description: This stone, and others in the vicinity, have been interpreted as marking the former lake margins of Lough Boora.
Site Designation: CGS

Geological Heritage Sites No Boundaries

Site Name: Clonbullogue Spring
IGH Theme Primary: IGH 16 Hydrogeology
County: Offaly
Townlands / District: Clonbullogue
Buffer Distance (m): 200
Critical Features: Warm spring
Easting IG: 260700
Northing IG: 223680
Summary Description: Warm spring
Site Designation: CGS

Geological Heritage Sites Boundaries

Site Code: KE001
Site Name: Chair of Kildare
IGH Theme Primary: IGH 2
IGH Theme Secondary: IGH 4
County: Kildare
Site Description: Natural rock exposures scattered over and around a hilltop
Geological Feature: The Chair of Kildare is an artificial mound on the edge of Grange Hill which is an inlier of Ordovician rocks, that is older rocks entirely surrounded by younger rocks.
Easting IG: 272590
Northing IG: 217750
Designation: CGS, recommended for Geological NHA

Geological Heritage Sites Boundaries

Site Code: KE003
Site Name: Hill of Allen
IGH Theme Primary: IGH 4
County: Kildare
Site Description: Large working Quarry
Geological Feature: The Hill of Allen has been heavily excavated on its northwest face. This excavation has exposed part of the Allen Andesite Formation, a massive andesitic lava, which in places within the quarry is porphyritic.
Easting IG: 275700
Northing IG: 220600
Designation: CGS

Sinead Timoney

From: Eileen Loughman <eileen.loughman@hse.ie>
Sent: 19 November 2014 11:54
To: Maighne Windfarm Scoping
Subject: HSE Reply Maighne Wind Farm Nov19th 2014
Attachments: Cover Letter Maighne Wind Farm Scoping 19th Nov 2014.pdf; HSE Reply Maighne Wind Farm EIS Scoping Report Received November 14.doc

Tina

Please see the submission on behalf of HSE.

Yours sincerely

Eileen loughman
Principal Environmental health Officer
Kildare LA Section
HSE The Crossings
Naas
045 873228
086 8226391

.....

Watch Gerry Collins and family in a short film about life and about gratitude. <http://youtu.be/clbhCV0bliM>
If you're a smoker, remember, you can quit, and we can help.
Freephone 1800 201 203 and visit www.quit.ie

"Tá an fhaisnéis sa ríomhphost seo (ceangaltáin san áireamh) faoi rún. Baineann sé leis an té ar seoladh chuige amháin agus tá sé ar intinn go bhfaighfidh siadsan amháin é agus gurb iadsan amháin a dhéanfaidh breithniú air. Más rud é nach tusa an duine ar leis é, tá cosc iomlán ar aon fhaisnéis atá ann, a úsáid, a chraobhscaoileadh, a scaipeadh, a nochtadh, a fhoilsiú, ná a chóipeáil . Seains gurb iad tuairimí pearsanta an údar atá san ríomhphost agus nach tuairimí FSS iad.

Má fuair tú an ríomhphost seo trí dhearmad, bheadh muid buíoch dá gcuirfeá in iúil don Deasc Seirbhíse ECT ar an nguthán ag [+353 1 6352757](tel:+35316352757) nó ar an ríomhphost chuig service.desk@hse.ie agus ansin glan an ríomhphost seo ded' chóras."

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Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Environmental Health
The Crossings
Dublin Road
Naas
Co. Kildare

Tel: (045) 873 267
(045) 873 208
Fax: (045) 871 864

Ms. Tina Raleigh
Fehily Timoney & Company
Core House
Pouladuff Road
Cork

Date: 19th November 2014

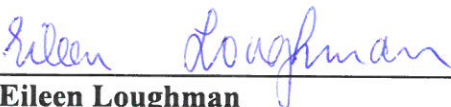
Re: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Dear Ms Raleigh,

I acknowledge receipt of the informal EIS Scoping Report. Please see attached comments.

If you have any queries please contact me?

Yours sincerely



Eileen Loughman
Principal Environmental Health Officer

HSE Reference:	EHIS 384
EIS Informal Scoping:	Proposed Maighne Wind Farm, Counties Kildare, Offaly and Meath
Development:	Proposed Strategic Infrastructural Development application to An Bord Pleanala for Wind Farms with 55 turbines 169m in height producing circa 125MW, locations dependent on final assessment;
Developer:	Element Power Ireland Ltd.
Consultants:	Fehily Timoney & Company, Core House, Pouladuff Rd, Cork

Public Consultation

The EIS should outline the extent of public consultation and demonstrate that the populations in the areas are adequately informed.

Human Health Impact Assessment

The potential impacts on human health from the construction and operation of the proposed wind farm developments shall be assessed.

Protection of Groundwater

All well water sources providing drinking water proximate to the proposed wind farm locations and trench systems should be identified, surveyed and outlined. The catchment and location of wells in the Johnstownbridge Well Field, Co Kildare should be outlined and included in the EIS. Potential impacts from the proposed developments on the proposed and existing drinking water sources should be assessed and appropriate mitigation measures outlined.

The impacts on groundwater from the proposed use of borrow pits should be identified and mitigation measures proposed. Restoration plans for the borrow pit areas should be included.

Details of fuel oil storage facilities should be outlined and appropriate measures proposed to protect groundwater from potential contamination.

Mains Water Infrastructure

Public mains supply systems exist in some areas under consideration. The water mains infrastructure should be outlined and potential impacts during construction identified.

Noise and Vibration

The tonal nature of the noise from the proposed wind farms should be described. Reduced noise turbine models and associated mechanical equipment shall be identified for use in noise sensitive locations.

Noise resulting from the use of borrow pits shall be assessed and mitigation measures outlined.

Air Quality

The potential for dust generation at proposed borrow pits, spoil heaps, stripping of peat land, trench construction, road construction sites and on un-surfaced roads should be identified and mitigation measures proposed.

Staff Facilities

A drinking water supply and sanitary facilities should be provided for staff at work locations. The provision of wastewater treatment at the proposed sub-station should be assessed.

Eileen Loughman
Principal Environmental Health Officer

Date 19th November 2014

Without Prejudice

8th December, 2014

Ms. Tina Raleigh,
Technical Director,
Fehily Timoney & Company,
Core House,
Pouladuff Road,
Cork.

MAIGHNE WINDFARM PROJECT SCOPING DOCUMENT

Dear Ms. Raleigh,

I refer to previous correspondence and meeting relating to the above proposed development.

Inland Fisheries Ireland (IFI) is a Statutory Body established on 1st July 2010. The Inland Fisheries Act 2010 (No. 10 of 2010) provided for the restructuring of the inland fisheries sector through the creation of a national inland fisheries organisation which replaced the Central Fisheries Board and Regional Fisheries Boards. The principal function of IFI is the protection, management and conservation of the inland fisheries resource. IFI policy is aimed at maintaining a sustainable fisheries resource through preserving the productive capacity of fish habitat by avoiding habitat loss, or mitigating harmful alteration to habitat. Projects such as proposed have the potential to impact on downstream fisheries resources if they are not carried out in an environmentally sensitive manner. The potential impacts of the proposed development on fisheries relate largely to the construction of the turbines and access roads and the laying of cables, etc. When this work is carried out in close proximity to a watercourse, there is a potential for negative impacts on the aquatic habitat.

The following observations and comments are of necessity of a general nature, as construction proposals and method statements are not as yet available. While they apply to the proposed development in general, the sites for which details have been received are adjacent to and have potential to impact on a wide range of fisheries waters including areas designated as SAC's, angling waters, adult holding areas, nursery and spawning waters, etc. forming parts of the Eastern and South Eastern River Basin Districts. Many proposed turbine sites are to be sited adjacent to a range of smaller watercourses which act primarily as contributories to downstream habitat for juvenile salmonids, lampreys and other species as well as macrophytes, algae and macroinvertebrates which as drift form a significant part of the food supply to the downstream fisheries. All of the waters referred to have, in the context of the proposed development, the potential to convey deleterious matter from those works such as concrete, silt, fuel, paints, thinners and sewage effluent as well as lubricating and hydraulic oils from construction plant and equipment downstream unless proper safeguards are in place. IFI request you have particular regard to the following in the planning stage of the proposed development.

Stream size can be misleading in regard to fish presence. A significant amount of fish rearing occurs in very small channels and seasonal streams. These streams may not be recognised as fish or macroinvertebrate habitat and their importance to fisheries sometimes overlooked.

All natural watercourses which have to be traversed during site development and road construction works should be effectively bridged prior to commencement. The crossing of watercourses at fords is unacceptable because of the amount of uncontrolled sedimentation that can be generated by their use. If temporary crossing structures are required, IFI approval will be necessary as regards specification and timing of installation. There is sometimes a serious misconception that in installing temporary crossing structures, the only issue is keeping water flowing from above a temporary crossing to below it. Design and choice of temporary crossing structures must provide for passage of fish and macroinvertebrates, the requirement to protect important fish habitats e.g. spawning and over wintering areas, as well as preventing erosion and sedimentation. In certain circumstances, access for angling or commercial fishing purposes may also be required. No temporary crossing on any watercourse shall be installed without the approval of IFI as regards sizing, location, duration and timing. The preferred option is for clear span 'bridge type' structures on fisheries waters. The crossing of watercourses at natural fords is not permitted because of the amount of uncontrolled sedimentation that can be generated. The creation of fords on streams and rivers through the introduction of stone is prohibited.

Where circumstances such as space or access difficulties preclude use of clear span structures, temporary crossings structures shall:

- Comprise one or more metal or concrete pipes, prefabricated culverts or such other material as IFI may permit of minimum diameter 900 mm. Pipes or culverts may be vertically stacked.
- Be laid in such manner as to maintain the existing stream profile.
- Ensure no significant alteration in current speed or hydraulic characteristics, in particular not result in scouring, deposition or erosion upstream or downstream the temporary crossing location.
- Have capacity to convey the full range of flows including flood flows likely to be encountered without the crossing being overtopped.
- Be covered with clean inert material such as to allow for the safe crossing of the widest items of plant and equipment without cover material being dislodged and entering waters.

The approach and departure routes to temporary crossing structures should be designed and installed so that drainage will fall away from the watercourse being crossed. In the event that the fall of ground does not permit sufficient control on drainage, additional earthworks settlement areas shall be provided. Temporary crossing structures should be fenced with terram or similar material to prevent wind blow carrying dusts and other potentially polluting matter to waters. Side armour (e.g. reinforced concrete traffic barriers) should be provided on temporary crossing structures to ensure machinery cannot drive over its edge, or force the discharge of material from the bridge deck to waters. IFI wish to emphasise that site selection for temporary crossings should have regard to all access and construction needs ranging from those of fencing contractor's vehicles to the longest wheelbase of multi-axle cranes. It is not permissible, except in exceptional circumstances, to reposition temporary crossing structures where these are not of a clear span type.

Where connection from the proposed wind farm is to be made to the national grid the crossing of important fisheries waters may be an issue where our specific approval will be required.

Permanent crossing structures should not damage fish habitat or create blockages to fish and macroinvertebrate passage. As in the case of temporary crossing structures, design and choice of structure should be based on its technical and economic feasibility to pass fish and macroinvertebrates, the requirement to protect important fish habitats e.g. spawning and over-wintering areas, provision in certain areas of angling and commercial fishing access including boat access and prevention of erosion and sedimentation. Culverts are the most frequently used river/stream crossing structures and are associated with some of the most common fish passage problems. The culverting of long stretches of fisheries water is extremely undesirable and can result in significant loss of valuable habitat. In the case of crossing structures over fishery waters, the preferred position is for clear span structures (bridges), so as not to interfere in any way with the bed or bank of the watercourses in question. Bridge foundations should be designed and positioned at least 2.5 metres from the river bank so as not to impact on the riparian habitat. Generally, bridges and bottomless culverts are the best option for maintaining natural stream channel characteristics and have the least impact on habitat. However, because of design and load bearing considerations, bottomless culverts may not always be suitable for installation particularly on narrow river channels, as foundations may encroach on the channel itself and possibly result in future scouring or erosion. Taking account of recent advances and investigations in the area of climate change and flood studies, designs should be such as to verifiably have carrying capacity for a 1 in 100 year fluvial flood flow whilst maintaining a minimum freeboard of 300 mm. The Office of Public Works (OPW) is the lead agency for flood risk management in the Republic of Ireland. Design and capacity of structures must also be in accordance with their requirements. IFI strongly recommends that contact be made with OPW at the earliest stage in the planning and design process. (www.opw.ie). Clear span designs maintain channel profile, do not alter gradients, readily pass sediment and debris and provide unrestricted passage for all size classes of fish by retaining the natural stream bed and gradient. Water velocity is not changed and they can be designed to maintain the normal stream width. Foundations should be positioned at least 2.5 metres from waters.

Embedded box and pipe culverts are less preferable to bridges and bottomless culverts. Embedded culverts must maintain the natural channel gradient, width and substrate configuration. They should be buried to a minimum of 500 mm. below the stream bed at the natural gradient. Box and pipe culverts must be sized to maintain the natural stream channel width. The gradient should not exceed 3%.

The availability of suitably sized material (depending on hydraulic conditions) to initiate "simulation" of the stream bed is the most preferable approach to establish fish and faunal passage through culverts. Culverts should be positioned where the watercourse is straightest and aligned with its bed.

In the case of bridges and bottomless culverts, structures should be designed and installed so as to:

- Allow for the maintenance of channel profile and existing gradient.
- Be capable of passing such debris as might arise during flood flow conditions.
- Ensure adequate light penetration to minimise loss in primary productivity.
- Not result in damage to the riparian habitat or necessitate construction within 2.5 metres of waters.
- Provide at locations specified by IFI, angling access and/or access for commercial fishing purposes.

While the preferred option is for bottomless culverts, IFI is prepared in certain circumstances to consider proposals for the installation of box or pipe culverts on fisheries waters. These may be installed subject to structures being sized so as to meet the above requirements in terms of channel profile, gradient, flood debris capacity, light, access and:

- Be positioned such that both the upstream and downstream invert shall be 500 mm. below the upstream and downstream river bed invert levels respectively.
- Never exceed a slope of 5%, in which circumstances baffles generally are required, and preferably not exceed a slope of 3%.
- As baffles can reduce the hydraulic efficiency of culverts, appropriate capacity provision must be included in the overall design.
- In the case of box culverts on angling waters, be 3 meters in height.

Pipe culverts are not generally considered acceptable on fisheries waters. They are normally only appropriate for use on minor watercourses and drainage ditches where these can be demonstrated as not being significant in terms of fisheries habitat.

Bank protection works are often required upstream and downstream of new structures, to ensure no undercutting or destabilisation of either the structure or riparian bank areas occurs. In carrying out bank protection works, it is essential that large enough boulders are selected and strategically positioned, to ensure they cannot be undercut. Normally this entails part burying boulders up to one third of their depth below stream bed level and securing them into their final position. In areas of high water energy, to ensure stability, boulders size should be a minimum of 0.5 ton. To facilitate revegetation, each course of boulders laid should be back filled with a layer of top soil. Selection of boulders in terms of shape to facilitate their placement and stability is a major consideration. Irregularly shaped boulders are very difficult to work with in terms of building multiple stable courses. The height to which rock armour is built must take account not only of the riparian zone requiring protection, but also in certain circumstances of the need to protect e.g. kingfisher and sand martin habitat. In many instances, one or two layers of armour will be sufficient to protect and stabilise the toe of embankments while allowing nesting.

Gabions are not a preferred option when it comes to bank protection. They can easily be vandalised and once the mesh is cut or broken, baskets can collapse. Gabion baskets can be unsightly and it is difficult to successfully establish and maintain vegetation on side walls. Gabion baskets are normally only acceptable at locations where due to access constraints it is not possible to install rock armour.

There are significant variations in the timing and duration of spawning activity throughout the Republic of Ireland. To minimise adverse impacts on the fisheries resource works in rivers, streams and watercourses should normally (except in exceptional circumstances and with the agreement of IFI) be carried out during the period **July-September**. The appropriate 'window' for instream works can vary depending on the nature of the fishery resource concerned and the existence of other factors such as catchment or sub catchment specific Bye Laws and Regulations.

In terms of stability both during the construction and operational phases, it is essential that you assess and critically review the soil type and structure at the proposed turbine locations, and along the route of any proposed access track(s)/road(s) including areas where temporary or permanent stock piling of excavated material takes place. This is particularly important if the areas concerned contain peat soils.

One of the potential impacts of the proposed development is the discharge of silt-laden waters to fisheries streams from newly developed sites at which earth moving and excavation works are on-going. Silt can clog salmonid spawning beds, and juvenile salmonids are particularly sensitive to siltation of gill structures. Similarly, plant and macroinvertebrate communities can literally be blanketed over, and this can lead to loss or degradation of valuable habitat. It is important to incorporate best practices into construction methods and strategies to minimise discharges of silt/suspended solids to waters.

The potential for soil erosion/ suspended solids generation is higher, during / after periods of prolonged rainfall. Systems should be put in place to ensure that there shall be no discharge of suspended solids or any other deleterious matter to watercourses during the construction / operational phase and during any landscaping works. Stockpiles of sand and other materials to be used in the works should be covered with sheeting when not in use to prevent washout of fines during rainfall. Stockpiles of topsoil and associated materials arising during site development such as turbine base excavations and installation of site road networks should be similarly protected. Silt traps should be constructed at locations that will intercept run-off to the drainage network. Traps should not be constructed immediately adjacent to natural watercourses. In designing silt traps account must be taken of the anticipated particle size(s) and the volumes of water likely to be focused through the trap(s). Retention time to allow appropriate settlement is a critical factor. A buffer zone should remain between silt trap(s) and watercourses with natural vegetation left intact so as to assist silt interception. Consideration should be given to the judicious positioning of silt fences. A comprehensive plan should be drawn up at the planning stage with specific measures to address the high potential for silt pollution of nearby watercourses during works on site.

During the construction process and operational phase, natural flow paths should not be interrupted or diverted so as to give rise to or create potential for erosion. Furthermore, excavation and installation of road(s)/access track(s) should be undertaken so as not to result in the creation of preferential flow paths that may result in erosion or which might otherwise interrupt the natural movement of waters for instance in peat bog areas. Where imported materials are used in road construction, these should be such as not to be liable

to become crushed by vehicular movement, and lead to discharge of fine particulates to downstream receiving waters.

Uncured concrete can kill fish and macroinvertebrates by altering the pH of the water. Pre-cast concrete should be used whenever possible, to eliminate the risk to all forms of aquatic life. When cast-in-place concrete is required, all work must be done in the dry and effectively isolated from any water that may enter the drainage network for a period sufficient to cure the concrete. Concrete delivery vehicles should be precluded from washing out at locations which would result in a discharge to surface waters. Specific controlled and environmentally safe vehicle washout areas must be provided. If cement is stored on site during construction work, it should be held in a dry secure area when not in use.

All oils and fuels should be stored in secure bunded areas, and particular care and attention should be taken during refuelling and maintenance operations on plant and equipment. Bunding should be to a volume not less than the greater of the following; 110% of the capacity of the largest tank or drum within the bunded area, or 25% of the total volume of substance that could be stored within the bunded area. All plant and equipment should carry oil/fuel spill kits. Where temporary diesel or petrol driven pumps are required, they should be sited within portable temporary bunded units. Where site works involve the discharges of drainage water to receiving rivers and streams, temporary oil interceptor facilities should be installed and maintained. Waste oils, empty oil containers and other hazardous wastes should be disposed of in accordance with the requirements of the Waste Management Act, 1996.

No instream works shall be carried out without the written approval of Inland Fisheries Ireland.

In the event of the project proceeding, it is the responsibility of the developer and the contractors to ensure that works will not give rise to a discharge of deleterious or polluting matter to waters.

At all times the precautionary principle should be applied throughout for the entire development. Particular attention should be paid to the various environmental directives including the Water Framework Directive, the Habitat and Birds Directives, the Fisheries Acts in particular and the Local Government (Water Pollution) Acts. Other environmental legislation should be considered as appropriate.

I trust these observations which are without prejudice will be of assistance. Notwithstanding statutory obligations under the planning process requiring the referral of certain applications for planning permission to us, IFI would be obliged to receive advance notification in the event our your clients proposing to submit an application for planning permission be it as strategic infrastructure to An Bord Pleanala, or at local authority level to the various planning authorities concerned.

Yours sincerely,

Donnachadh Byrne

Donnachadh Byrne,
Senior Fisheries Environmental Officer (SFEO), IFI Clonmel.

Noel Mc. Gloin

Noel Gloin
SFEO, IFI Dublin

Please note that any and all further pre application correspondence regarding this matter should continue to be addressed to Mr. Noel Mc. Gloin, Senior Fisheries Environmental Officer, IFI Dublin, 3044 Lake Drive, Citywest Business Campus, Dublin 24. Email noel.mcgloin@fisheriesireland.ie

Sinead Timoney

From: IPCC <bogs@ipcc.ie>
Sent: 03 December 2014 16:47
To: Maighne Windfarm Scoping
Subject: Maighne Wind Farm Scoping document (IPCC submission)
Attachments: Maighne Wind Farm KE, Scoping (IPCC submission).pdf; ATT00001.htm

Follow Up Flag: Follow up
Flag Status: Completed

Dear Sir/Madam,

Please find attached a submission from the Irish Peatland Conservation Council (IPCC) in relation to the scoping document sent out in relation to Maighne Wind Farm in Kildare, Meath and Offaly. I would appreciate if you could confirm receipt of this submission. Apologies for the document being slightly delayed and I hope that our views can be taken into account.

Many thanks,

Tadhg Ó Corcora MSc.
Conservation Officer
Irish Peatland Conservation Council

Bog of Allen Nature Centre
Lullymore
Rathangan
Co. Kildare
Ireland

Tel: +353 (0)45 860 133
E-mail: bogs@ipcc.ie
www.ipcc.ie

Support the Irish Peatland Conservation Council this Autumn by choosing a gift for a loved one from IPCC's range of good natured gifts. IPCC's 2014 gift catalogue also offers a variety of nature inspired gifts. You can shop online at www.ipcc.ie or call 045-860133.



IRISH PEATLAND CONSERVATION COUNCIL

COMHAIRLE CHAOMHNAITHE PHORTAIGH NA HÉIREANN

Lullymore, Rathangan, Co. Kildare, Ireland
Líolach Mór, Rath Iomgáin, Co. Chill Dara, Éire

Tel/Teil: +353-(0)45-860133
e-mail/ríomhphost: bogs@ipcc.ie web/idirlíon: www.ipcc.ie

Tina Raleigh
Fehily Timoney & Company
Core House
Pouladuff Road
Cork
Ireland

2nd December 2014

Re: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Dear Ms Raleigh,

I refer to the above proposed development and the scoping document sent to the Irish Peatland Conservation Council (IPCC). The IPCC is an environmental NGO with a remit of conserving a representative portion of Irish peatlands. The IPCC recognise the importance of increasing the renewable energy sector as part of international efforts to combat climate change and reduce dependency on the abstraction of non-renewable resources such as peat and oil.

However, the IPCC would have significant concerns in relation to the above proposed development as it has the potential to result in the destruction of a mosaic of peatland habitats and its associated wildlife. In Ireland over 77% of our peatlands have lost their conservation value through the combined processes of exploitation, reclamation and development and we have both a European and an International obligation to protect this rare and threatened habitat for future generations under the EU Habitats Directive and under the Ramsar Convention. For these reasons the EIS needs to be stringent in ensuring there is no further loss of valuable peatland habitat.

Lullymore Area

IPCC are particularly concerned with one element of the development having studied the map provided as part of the scoping document (Figure 2.1). These are turbines 7 and 8 of the Derrybrennan cluster of turbines. These are proposed to be located directly adjacent to the Nature Reserve of Lullymore West. I have edited an electronic version of the turbine location map to show the approximate location of the site which can be found below. The X on the map shows the location of Lullymore West Bog Nature Reserve while the Y shows Lodge Bog Nature Reserve, referred to later in this submission.

Lullymore West is owned and managed by the IPCC. It is a 4.5 ha previously cutover bog which has naturally colonized and become a vital refuge for wildlife. The site supports a variety of habitats and is exceptional in terms of the species supported, particularly of butterfly. Over 20 butterfly species are present on the site including the Marsh Fritillary, protected under the Habitats Directive. It is noted that the Marsh Fritillary is referenced a number of times through the scoping document and the potential threat of the wind farm to them is acknowledged. Surely placing turbines this close to a known successful colony would constitute bad planning.

I would also highlight that there is another significant Marsh Fritillary population supported in a site known as Lullybeg which is managed by Butterfly Conservation Ireland, who are not referenced in the list of notified organisations.

We are also concerned that turbines proposed here beside our reserve of which we know the ecological value could well mean that a number of other proposed turbines are equally as damaging and their locations as poorly researched.

Our second issue here is with the proposed access road to these sites. The proposal here would appear to be a

30 YEARS TAKING ACTION FOR BOGS AND WILDLIFE

Charity No/Uimhir Carthanacht: CHY6829 Registered in Ireland No/Uimhir Cláraithe in Éirinn: 116156 Registered Office/Oifig Cláraithe: Lullymore, Rathangan, Co. Kildare, Ireland

Company Secretary/Rúnaí Comhlacht: Rachael Kavanagh

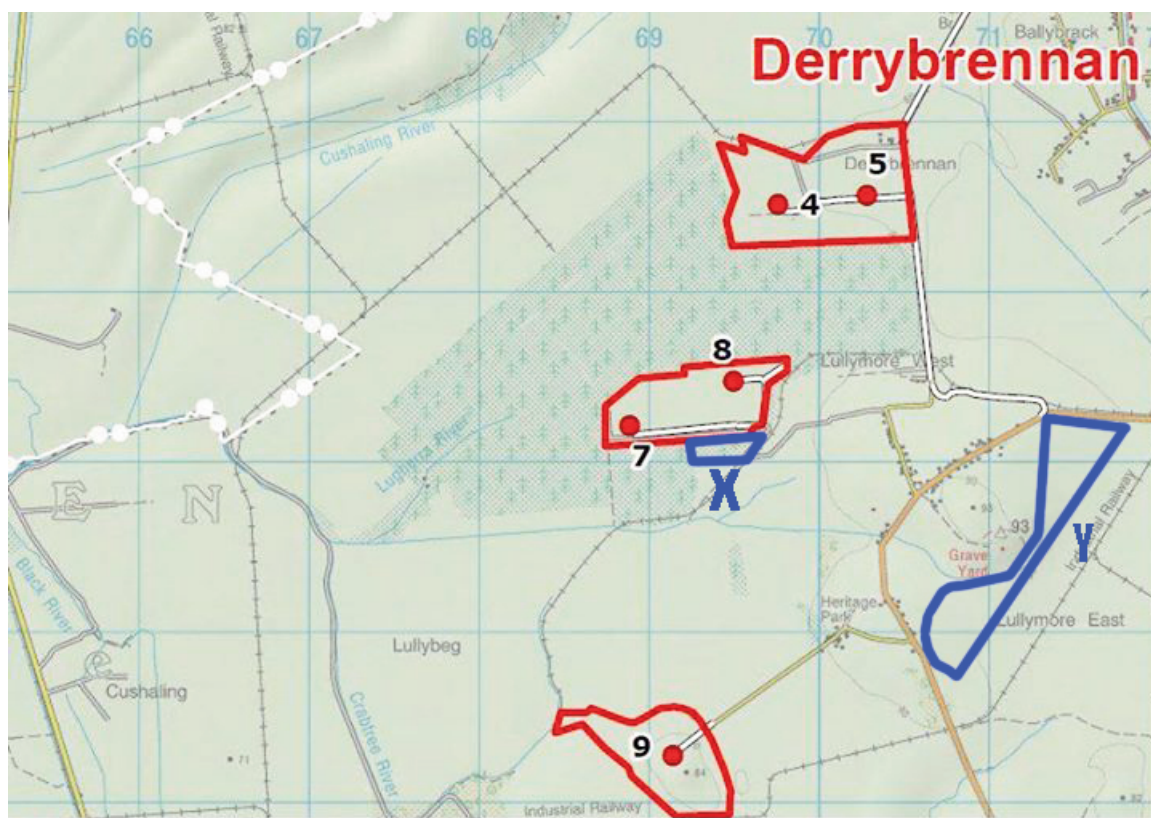
Directors/Stiúrthóirí: Martin Kelly, Catherine O'Connell, Miles Newman, Joanne Denyer, Rachael Kavanagh

Patrons/Pátrúnaí: Pauline Bewick, HRH Princess Irene of the Netherlands, Eanna Ní Lamhna, Matthijs Schouten, Paul Schellekens Netherlands Ambassador to Ireland

completely new road development joining the R414 to the access road for the old Bord na Móna works. The IPCC own additional property here in the shape of Lodge Bog, 35ha of raised bog habitat managed by IPCC for conservation and education purposes. IPCC very often bring school groups down the exact route proposed by this development and are currently in negotiation with Bord na Móna on finalising the path as part of a greater Lullymore Biodiversity Loop Walk. In addition the point at which the road is proposed to meet the R414 is directly atop or adjacent to a pull-in area that IPCC have agreed with Kildare County Council, to allow visitors and tour groups parking area in order to gain access to the Lodge Bog Nature Reserve. The proposed road would certainly lead to this becoming unfeasible and would restrict IPCC access to our ongoing education program.

Finally the new road is proposed to join the R414 at what is already quite a dangerous junction and we would be greatly concerned in terms of road safety if the development is permitted to build a junction on such a sharp turn.

In conclusion I would highlight that earlier this year the IPCC completed a project entitled the Lullymore Heritage Atlas which maps and details various aspects of heritage (cultural, environmental and social) in a 10 mile radius surrounding the Bog of Allen Nature Centre. This development is likely to come in close proximity to a number of these sites so I would ask that as part of the EIA this document be reviewed. It can be downloaded in the Discover and Learn section of our website (www.ipcc.ie).



I would like to request that you send on the Environmental Impact Statement once it is complete in order for us to review the finished document and feedback into the planning stage. In addition IPCC would request that we be kept up to date on any further developments that occur pre or post planning application as we view ourselves as a keenly interested stakeholder in the entire process.

Many thanks for taking the time to read this submission.

Is mise le meas,

Tadhg Ó Corcora
Conservation Officer
Irish Peatland Conservation Council
Email: bogs@ipcc.ie
Phone: 045-860133

Sinead Timoney

From: Irish Water Customer Service <customerservice@water.ie>
Sent: 19 November 2014 10:28
To: Maighne Windfarm Scoping
Subject: Your query regarding the Maighne Windfarm Project - Case ID 7218869649

Dear Ms Raleigh,

Thank you for your recent postal communication with Irish Water regarding the Maighne Wind Farm Project.

We would like to investigate this project further, could you please email us a copy of the scoping document you refer to in your letter at your soonest convenience?

Thank you in advance for your cooperation.

Yours sincerely,

R McKenna
Customer Service Advisor

Uisce Éireann
Bosca OP 860, Oifig Sheachadta na Cathrach Theas, Cathair Chorcaí, Éire
Irish Water
PO Box 860, South City Delivery Office, Cork City, Ireland

T: 1890 278 278
Minicom: 1890 378 378
www.water.ie

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“Tá an fhaisnéis a sheachadtar beartaithe don duine nó don aonán a bhfuil sé seolta chuige amháin agus féadfaidh sé go bhfuil ábhar inti atá faoi rún, íogair ó thaobh na tráchtála de agus/nó faoi phribhléid. Toirmisctear aon athbhreithniú, atarchur nó scaipeadh a dhéanamh ar an bhfaisnéis sin, nó aon ghníomh á dhéanamh ar a hiontaoibh, ag daoine nó ag aonáin seachas an faighteoir a bhfuil sí ceaptha dó/di, agus d'fhéadfadh sé a bheith neamhdhleathach. Ní ghlacann Uisce Éireann le haon dliteanas i leith gníomhartha agus éifeachtaí atá bunaithe ar úsáid thoirmiscthe na faisnéise seo. Níl Uisce Éireann faoi dhliteanas i leith tarchur cuí, iomlán na faisnéise atá sa teachtaireacht seo ná i leith aon mhoille maidir lena fáil. Má fuair tú an teachtaireacht seo trí dhearmad, téigh i dteagmháil leis an seoltóir agus scríos an t-ábhar ó aon ríomhaire. Go raibh maith agat as d'aird.”

Sinead Timoney

From: Suzanne Dempsey <sdempsey@water.ie>
Sent: 21 November 2014 16:54
To: Maighne Windfarm Scoping
Subject: FW: Maighne wind farm scoping report
Attachments: Response to EIS Scoping Report Requests.docx

From: Suzanne Dempsey
Sent: 21 November 2014 4:50 PM
To: 'maighnewindfarmscoping@ftco.ie.Closing'
Cc: Mary McMahon; Keith Kirwan; John O'Shaughnessy; Louise Kavanagh
Subject: Maighne wind farm scoping report

Dear Sirs,

We note your contact re responses to your Scoping Report for an EIS regarding the above development . Please find attached a short summary of aspects we would like to be addressed in relation to water services.

We note the commitment below by the developer to consult with Irish Water with respect to existing water service infrastructure and look forward your consultation with our Asset Strategy specialists in our East and Midlands Region;

Mary McMahon – water supply; mamcmahon@water.ie

Keith Kirwan - waste water; kkirwan@water.ie

With respect to any connections required to the public water supply or wastewater collection systems please contact our Connections and Developer Services Team;

John O'Shaughnessy – joshough@water.ie

Material Assets

The physical infrastructure, which could potentially be affected by Maighne Wind Farm, 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.

Regards

Suzanne Dempsey

Spatial Planning Specialist

Asset Strategy and Sustainability

Irish Water

Colville House| Talbot St.| Dublin 1

T: 01 8925110 E: sdempsey@water.ie

 Please consider the environment before printing this e-mail

Sinead Timoney

From: Suzanne Dempsey <sdempsey@water.ie>
Sent: 15 December 2014 10:30
To: Maighne Windfarm Scoping; Tina Raleigh
Cc: Mary McMahon; Keith Kirwan; John O'Shaughnessy; Catherine Darmody; Louise Kavanagh
Subject: RE: Maighne wind farm scoping report

Dear Sirs,

We refer to your letter to John Tierney of the 8th of December re the above.

We refer you to our previous communications with you on this matter and would ask you to contact Mary McMahon or Keith Kirwan with respect to your new proposal.

Please note that communications to Irish Water with respect to statutory planning process for SI development should be referred to our Asset Strategy and Sustainability team in the first instance to insure that it is dealt with in a timely manner;

Suzanne Dempsey
Spatial Planning,
Asset Strategy and Sustainability,
Irish Water,
P.O. Box 6000
Dublin 1
sdempsey@water.ie

Regards
Suzanne Dempsey
Spatial Planning Strategy Specialist
Asset Strategy and Sustainability

Irish Water

Colville House| Talbot St.| Dublin 1
T: 01 8925110 E: sdempsey@water.ie

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Keith Kirwan - waste water; kkirwan@water.ie

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John O'Shaughnessy – jshaugh@water.ie

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Regards

Suzanne Dempsey

Spatial Planning Specialist

Asset Strategy and Sustainability

Irish Water

Colville House| Talbot St.| Dublin 1

T: 01 8925110 E: sdempsey@water.ie

 Please consider the environment before printing this e-mail

Response to EIS Scoping Report Requests

IW currently does not have the capacity to advise on scoping of individual projects. However, in general we would like the following aspects of Water Services to be considered in the scope of an EIS where relevant;

- a) Impacts of the development on the capacity of water services (do existing water services have the capacity to cater for the new development if required).
- b) Any up-grading of water services infrastructure that would be required to accommodate the development.
- c) In relation to a development that would discharge trade effluent – any upstream treatment or attenuation of discharges required prior to discharging to an IW collection network
- d) Any physical impact on IW assets – reservoir, treatment works, pipes, pumping stations, discharges outfalls etc.
- e) Any potential impacts on the assimilative capacity of receiving waters in relation to IW discharge outfalls including changes in dispersion /circulation characterises
- f) Any potential impact on the contributing catchment of water sources either in terms of water abstraction for the development (and resultant potential impact on the capacity of the source) or the potential of the development to influence/ present a risk to the quality of the water abstracted by IW for public supply. **(Likely to be relevant in relation to windfarm development)**
- g) Where a development proposes to connect to an IW network and that network either abstracts water from or discharges waste water to a “protected”/sensitive area, consideration as to whether the integrity of the site/conservation objectives of the site would be compromised.
- h) Mitigation measures in relation to any of the above

This is not an exhaustive list.

Please note that if a development will require a connection to either a public water supply or sewage collection system the developer is advised to contact Irish Water’s Connections and Developer Services Team prior to applying for planning permission.

Sinead Timoney

From: Karen Keane <kkeane@kildarecoco.ie>
Sent: 16 December 2014 16:32
To: Maighne Windfarm Scoping
Subject: Proposed Maighne Wind Farm...

Dear Sir/Madam,

Please note Kildare County Council have no further comment to make in relation to the grid connection options outlined in your correspondence dated 8th December 2014.

Kind regards,

Karen

Tá an ríomhphost seo príobháideach agus ní ceadmhach úsáid an ríomhphoist seo d'éinne ach don té ar seoladh chuige é. D'fhéadfadh go mbeadh eolas ann atá faoi phribhléid agus rúnda de réir an dlí. Munar duit an ríomhphost seo, déan teagmháil leis an seoltóir chomh luath agus is féidir. D'fhéadfadh nach iad tuairimí Chomhairle Contae Chill Dara na tuairimí atá curtha in iúl sa ríomhphost seo.

Déanann Comhairle Contae Chill Dara iarracht ríomhphoist a chosaint ó víris. Mar sin féin, moltar duit gach ríomhphost a scanadh, mar ní ghlacann an Chomhairle aon dliteanas i leith damáiste do do chórais.

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Sinead Timoney

From: Karen Keane <kkeane@kildarecoco.ie>
Sent: 21 November 2014 16:33
To: Maighne Windfarm Scoping
Subject: Maighne Wind Farm PCo186
Attachments: Acrobat; PDFMaighne Wind Farm Scoping Document KCC Observations_1.pdf

Dear Ms. Raleigh,

Please find attached Kildare County Councils observations in relation to Maighne Wind Farm in North County Kildare and County Offaly and South County Meath. I will forward a hard copy also.

Kind regards,

Karen

Tá an ríomhphost seo príobháideach agus ní ceadmhach úsáid an ríomhphoist seo d'éinne ach don té ar seoladh chuige é. D'fhéadfadh go mbeadh eolas ann atá faoi phribhléid agus rúnda de réir an dlí. Munar duit an ríomhphost seo, déan teagmháil leis an seoltóir chomh luath agus is féidir. D'fhéadfadh nach iad tuairimí Chomhairle Contae Chill Dara na tuairimí atá curtha in iúl sa ríomhphost seo.

Déanann Comhairle Contae Chill Dara iarracht ríomhphoist a chosaint ó víris. Mar sin féin, moltar duit gach ríomhphost a scanadh, mar ní ghlacann an Chomhairle aon dliteanas i leith damáiste do do chórais.

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Sinead Timoney

From: David O'Grady <dogrady@kildarenrdo.com>
Sent: 15 December 2014 13:25
To: Maighne Windfarm Scoping
Subject: NRO-700-Maigne wind farm scoping

Dear Tina,

I refer to your letter dated 8th December 2014 on EIS scoping.

Any potential impact on the National Road Network of the cable routes in relation to crossing of and proximity to should be considered and assessed.

Regards,

David O'Grady

Chartered Engineer
A/Senior Engineer

Kildare County Council National Roads Office | Block B, Maudlins, Naas, County Kildare

Office Ph: +353 (0) 45 988 900 | **Direct line:** +353 (0) 45 988 908 | **Mob:** +353 (0) 86 829 5322 | **Fax:** +353 (0) 45 875 845
email: dogrady@kildarenrdo.com



1.0 Introduction

Kildare County Council has been requested by Fehily Timoney and Company to comment on the Environmental Impact Assessment Scoping Report received on the 3rd November 2014. It is noted that this is an informal scoping exercise and the final EIS will be informed by inputs from various statutory bodies, stakeholders, Environmental Non Government Organisations etc . Outlined hereunder are initial comments regarding the proposed project. Kildare County Council will continue to provide input to the statutory planning process for the above project as provided for under the planning legislation.

2.0 Description of Project

The proposed development of Maighne Wind Farm as outlined in the document received consists of a maximum of 55 turbines with a maximum tip height of up to 169 metres and which it is proposed to connect to the Irish grid for domestic purposes generating circa 125MW. The turbines are to be located over a number of separate locations and depending on the final assessment could be located in counties Kildare, Offaly and Meath. It would appear from the foregoing that there may be changes to actual locations, numbers etc. Kildare County Council requests that it should be informed of any significant changes regarding the overall project particularly regarding potential location of turbines etc. .

It is noted that the electricity generated will be transmitted by a collector system of medium voltage underground cables to a proposed on site substation. It is stated that there will be no overground power lines associated with the development. The construction of the turbines will necessitate new access roads, borrow pits and other ancillary works. A permanent meteorological mast is also proposed as part of the development.

Figure 2.1 of the scoping report identifies approximately 15 different locations where turbines could be sited. The drawing also outlines possible locations for compound areas, borrow pits, substation and the meteorological mast.

3.0 National Planning Policy

At a national level it is noted that there are a number of documents under review or currently being drafted which provide an important context for the future consideration of significant large scale energy related projects in Ireland. These include:

- The Department of the Environment, Heritage and Local Government (DoEHLG, 2006) "Wind Energy Development Planning Guidelines" the review of which will specifically address issues such as noise, shadow flicker, separations distances from dwellings etc.
- The Department of Communications, Energy and Natural Resources (DECNR) Renewable Electricity Policy and Development Framework is also under review. This framework recognises that the emphasis of the energy export policy has shifted away from export. The goal of this framework is to optimise the opportunities in Ireland for renewable electricity generation development on land at significant scale, to serve both the All Ireland Single Electricity Market and potential, future export markets. It is anticipated that this will

provide guidance for planning authorities and An Bord Pleanála and contribute towards meeting Ireland's future energy needs, particularly up to 2030 and beyond.

The DCENR is currently finalising a draft scoping report in connection with carrying out an SEA of the proposed Renewable Electricity Policy and Development Framework which will be subject to consultation.

4.0 County Planning Policy

4.1 Kildare County Development Plan 2011-2017

The Kildare County Development Plan 2011-2017 sets out the overall strategy for the proper planning and sustainable development of the county over that time period. The policies included in the plan must be considered as part of the overall evaluation process of the proposed development as it relates to County Kildare.

Of particular note to the current proposed development is Chapter 8 Energy and Communication. This chapter deals specifically with wind energy developments and notes in general that areas in close proximity to grid connections and outside designated heritage sites may be suitable locations for the provision of wind energy. It is also recognised that areas suitable for large scale wind energy developments may also coincide with the county's designated sensitive and scenic areas. The following extract from the plan includes the policies which aim to provide guidance on wind energy developments in the county:

8.11.2 Wind

It is the policy of the Council:

WE 1: *To have regard to the Department of the Environment, Heritage and Local Government Guidelines for Planning Authorities on Wind Energy Development(2006) in assessing all planning applications for wind farms.*

WE 2: *To encourage the development of wind energy in suitable locations in an environmentally sustainable manner and in accordance with Government policy.*

WE 3: *To ensure that the assessment of wind energy development proposals will have regard to:*

- *The sensitivity of the landscape;*
- *The visual impact on protected views, prospects, scenic routes, as well as local visual impacts;*
- *The impacts on nature conservation designations, archaeological areas and historic structures, public rights of way and walking routes;*
- *Local environmental impacts, including noise and shadow flicker;*
- *The visual and environmental impacts of associated development such as access roads, plant and grid connections;*

- *The scale, size and layout of the project, any cumulative effects due to other projects;*
- *The impact of the proposed development on protected bird and mammal species.*

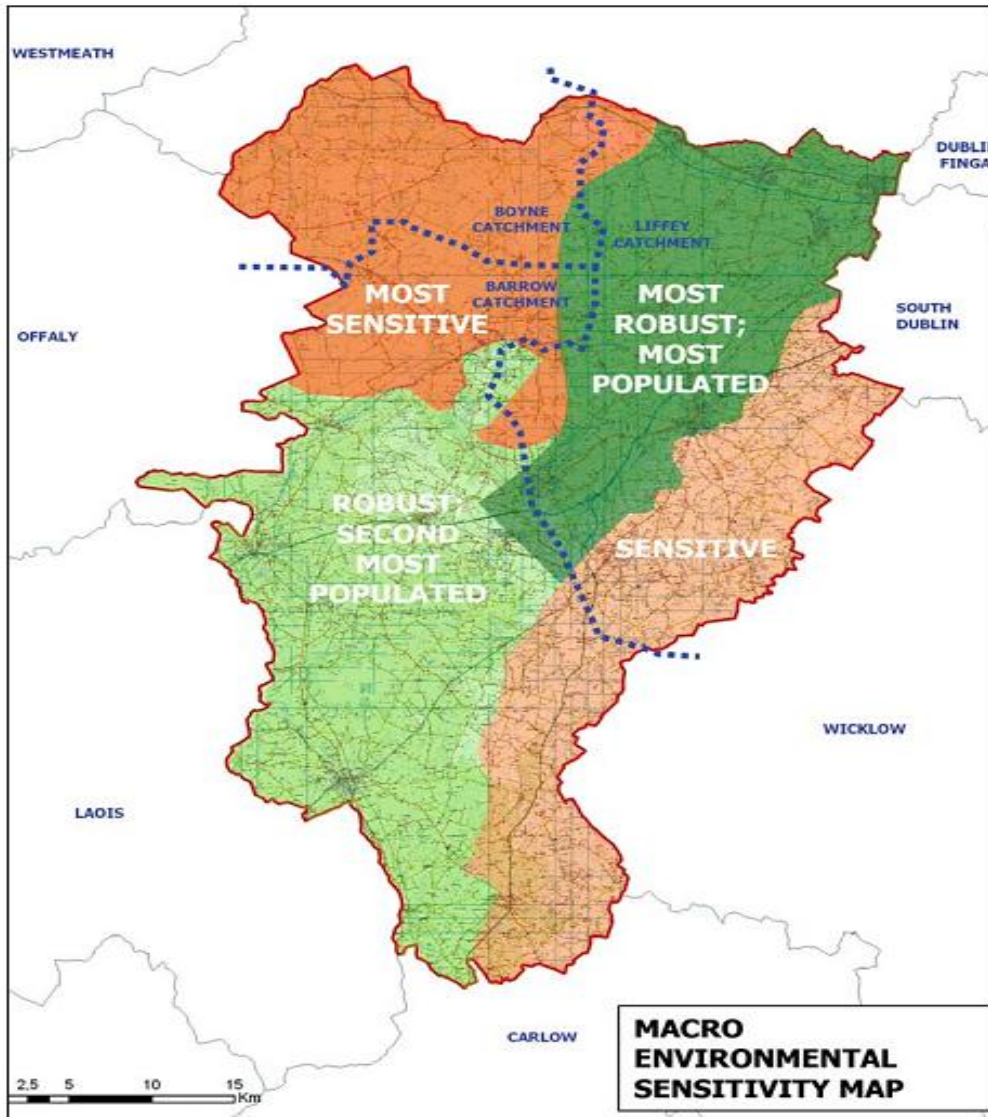
Under Section 8.13, Energy Objectives it should also be noted that it is an objective of the Council to examine the possibility of designating appropriate areas of the county as being suitable for the production of wind energy (ENO1). In this regard, the Council has commenced preliminary work to inform the preparation of a Wind Energy Development Strategy. Agreement to progress a variation of the County Development Plan 2011-2017 to include public consultation and involvement of prescribed bodies and the general public was agreed by the Council in December 2013. All councils however, have been advised by the Department of the Environment, Community and Local Government (Circular PL 20-13) to defer the completion of the county wind strategy until the policy review of said department's Wind Energy Development Guidelines and the Department of Communications, Energy and Natural Resources (DECNR) completes the Renewable Energy Export Policy and Development Framework. The Kildare Wind Energy Strategy once completed and subject to public consultation and adopted as a variation of the County Development Plan will establish the detailed local planning policy framework for wind energy in the County and should inform consideration of planning applications in this area.

4.2 SEA Environmental Report

Consideration of environmental sensitivities should inform the location of future wind farms within County Kildare. In this regard, it should be noted that as part of the Strategic Environmental Assessment process for the County Development Plan the county was mapped in terms of macro environmental sensitivity. The following data sets were included in the geographic analysis:

- Landscape Character Area boundaries;
- Ecological Values;
- Land Cover;
- Topography (Contours, Slopes & Ridge Lines);
- Soils;
- Settlement Patterns;
- Existing and Planned water services infrastructure and capacity; and,
- Existing and Planned transport infrastructure and capacity.

The Environmental Report indicates that environmental sensitivities increase towards the north west of the county due to the existence of large areas of bogs and wetlands in the area. (See Map 2.4 Environmental Sensitivities taken from the CDP 2011-2017)



5.0 Maighne Wind Farm EIS Scoping Report

The following section outlines initial commentary on the scoping report issued. Kildare County Council will however, comment as appropriate throughout the application process as provided for under planning legislation.

5.1 Development Alternatives

The consideration of alternatives comprise an important element of the EIS. The Maighne Wind Farm Scoping Report states that the possible alternatives studied in respect of the proposed wind farm are to be outlined under the possible locations and access and cabling.

In relation to locations the following criteria have been listed:

- Wind Resource
- Proximity to dwellings
- Land Zoning in County Development Plans
- Environmental conservation designations

- Landscape designations,
- Established and future land use
- Ease of access etc.

It is considered that proximity to rivers / water courses and transportation infrastructure should also inform the turbine location criteria.

In relation to access both access and cabling to each site and internal access routes have been considered with existing tracks, ground conditions and terrain in mind.

It is considered that details should be provided in relation to the interconnection of the various sites in terms of the transmission of electricity via the proposed underground cabling. The methodology proposed in terms of the undergrounding of the cables and any required safety measures should be detailed. Information on the routes of the proposed network of underground cables linking the sites should also be provided.

5.2 Economic Impact

It is considered that the scoping report should include an assessment of the possible impacts of the development on the equine industry such as the thoroughbred bloodstock and sporthorse sectors. These industries are of significant importance to the Kildare economy. It should be ensured that appropriate mitigation measures be provided should there be any potential adverse impacts on this important industry.

5.3 Shadow Flicker

The location of turbines should be in accordance with the most up to date national standards which will be set following the review of the DoEHLG Wind Energy Development Planning Guidelines. The EIS should also include an explanation of 'wind farm related dwellings' and whether the proposal would allow for turbines to be located closer to these dwellings.

The EIS should also provide details of other properties that may be subjected to shadow flicker such as schools, crèches, healthcare facilities, offices and thoroughbred breeding and training facilities. The EIS should also outline the mitigation measures proposed should the model reveal that any sensitive property may be subject to shadow flicker.

5.4 Noise and Vibration

It is considered that the EIS should describe the tonal nature of the noise. Reduced noise turbine models and associated mechanical equipment shall be identified and used in noise sensitive locations. Also the noise resulting from the use of borrow pits shall be assessed and mitigation measures outlined.

Clarification should be provided in relation to the hub heights that the noise limits are set.

5.5 Traffic and Transportation

The following issues should be considered as part of the EIS in relation to transportation:

- A pavement condition survey on access roads is required to be carried out before and after development.

- FWD (falling weight deflectometer) analysis needs to be carried out on the necessary roads to measure their structural strength to carry heavy loads.
- Repair work to roads where required to be carried out by applicant when works are completed.
- Permits to be issued by LA for abnormally large loads beforehand where routes and bridges should be measured for widths and bridge clearance and structurally examined beforehand.
- Location and construction detail of haul roads to be subject to prior agreement.
- Lines of sight at site entrances to comply with Design Manual for Roads and Bridges (DMRB).
- Applicant to submit details of the anticipated traffic types and volumes for the proposed development. Details to include expected peak site traffic, day to day operating hours and duration.
- Vehicle washing facilities should be provided within the site so as to prevent deposition of mud and debris on the public roads.
- Details of measures for the prevention of dust from entering onto the public roads should be submitted.
- Drawing showing proposed site traffic management layout should be submitted with application to show how it is proposed to provide for onsite car parking spaces required for the development.
- Applicant to submit plans showing adequate turning movements within the curtilage of the site, for the number and type of vehicles indicated, to prevent vehicles from reversing onto the public road.
- Full design details for the entrances to the proposed development should be submitted and agreed.

5.6 Air and Climate Change

The potential for dust generation at proposed borrow pits, spoil heaps and on un-surfaced roads should be identified and mitigation measures proposed.

5.7 Water Quality

The catchment and location of wells in the Johnstownbridge Well Field should be outlined and included in the EIS. All well water sources providing drinking water proximate to the proposed wind farm locations and trench systems should be identified, surveyed and outlined. Potential impacts from the proposed developments on the proposed and existing drinking water sources should be assessed and appropriate mitigation measures outlined. The impacts on ground water from the proposed use of borrow pits should be identified and mitigation measures proposed. Restoration plans for the borrow pit areas should be included.

Details of fuel oil storage facilities should be outlined and appropriate measures stated to protect groundwater from potential contamination. Public mains supply exist in some areas under consideration. The water mains infrastructure should be outlined and potential impacts during construction identified. A drinking water supply and sanitary facilities should be provided for staff at

work locations. It is recommended that wastewater treatment be provided at the proposed substation / site compound rather than a holding tank in order to avoid septicity.

Particular attention should be focused on the disturbance of drainage and water courses during construction.

5.8 Archaeological, Architectural and Natural Heritage

In relation to architectural heritage it is considered that a conservation architect with experience should be engaged to examine the possible impact of the proposed development on protected structures, their curtilage and attendant grounds, vernacular structures and demesnes and their designed historic landscapes. It is also considered that the proposed development could impact upon urban landscapes, architectural conservation areas, streetscapes and parks. The 1837 Original OS survey for the county, NIAH building survey and NIAH garden and demesnes surveys together with the Kildare County Record of Protected Structures would form a baseline survey for this study. In addition to visiting publically accessible national monuments and sites, all monuments, buildings and demesne landscapes whose setting may be impacted by the proposed development should also be visited subject to the consent of the owner, in order to determine the impact on the setting of these structures and designed landscapes.

It is considered that the EIS should have regard to Table 13.6 Sites of Geological Importance of the Kildare County Development Plan 2011-2017 in relation to the sites that are in the locality of the proposed development. Any possible impacts should be investigated and details of mitigation should be outlined if necessary.

5.9 Fauna and Flora

Section 4.13 – *Terrestrial and Freshwater Flora and Fauna* – should make reference to natural heritage datasets (county surveys) commissioned by Kildare County Council which have been made available to the consultants - Hedgerow Survey, Wetlands Survey and County Geological Heritage Survey.

The proposed development should be subject to appropriate assessment to identify if it is likely to have direct, indirect or ‘in combination’ impacts on the habitats and/or species for which any NATURA 2000 site within 15km is designated (including any hydrological links)

Protected species outside of designated sites should also be considered in particular bat species and flight paths for migrating bird species. All sites should be surveyed for invasive species and recommendations for control made as part of EIS.

5.10 Soil, Geology and Slope Stability

Under section 4.14.2 – *Assessment Methodology* – reference is made to potential for peat landslide however no reference is made to other types of soil slippages which have potential to occur due to excavation, changes in water levels, loadings etc. All movement of soil shall comply with the requirements of the Birds and Habitats regulations in relation to the spread of invasive species.

5.11 Landscape and Visual Assessment

The EIS should have regard to the Kildare County Landscape Character Areas identified in Map 14.1 (See Appendix 1) of the Kildare County Development Plan 2011-2017 and also Map 14.2 (See Appendix 1) Landscape Sensitivity Areas which outlines the sensitivity of the various character areas. The possible impact of the proposed development on the Scenic Routes in the County as outlined in Table 14.3(See Appendix 1) of the Kildare County Development Plan 2011-2017 should be investigated in the EIS with particular reference to routes 6, 20, 28, 38, 39 and 40. It will also be necessary to investigate the possible impact of the development on the Protected Views designated in chapter 14 of said development plan with particular reference to views from the Chair of Kildare, Hill of Allen, Views of Robertstown Countryside and Views across the Canal, Views of Bogland Plains, Views of Plains of Kildare and West Central Boglands. Views to and from Newtown Hills etc need to be assessed, as to the extent and impact of visual intrusion by industrial elements on the setting, visual amenity and sense of place of these areas.

5.12 Amenity and Recreation

Other amenity areas which provide a valuable resource to the inhabitants of the county include the forest parks and woodlands. It is noted from the scoping document that the proposed turbines may be located in close proximity to Donadea and Rahin forest parks and the possible impacts on these areas should be outlined in the EIS and mitigated against if possible.

5.13 Aviation

The EIS should consider the impact of the development on aviation and section 6.6 Aviation of the Kildare County Development Plan 2011-2017 should be consulted in this regard. The Department of Defence also uses Kildare as part of its training area for pilots. The developer should refer to planning file 13/702 for a wind monitoring mast which was refused by Kildare County Council and upheld on appeal to An Bord Pleanála (pl 09 243523).The Department of the Defence and the Irish Aviation Authority should be consulted in this regard.

5.14 Cumulative Impact

Cumulative impact of the overall development is required on a range of receptors. These include landscape and visual amenity, cumulative effects on species and habitats as well as social and economic effects such as impacts on the local economy and recreation. The issue of combined visibility requires careful consideration.

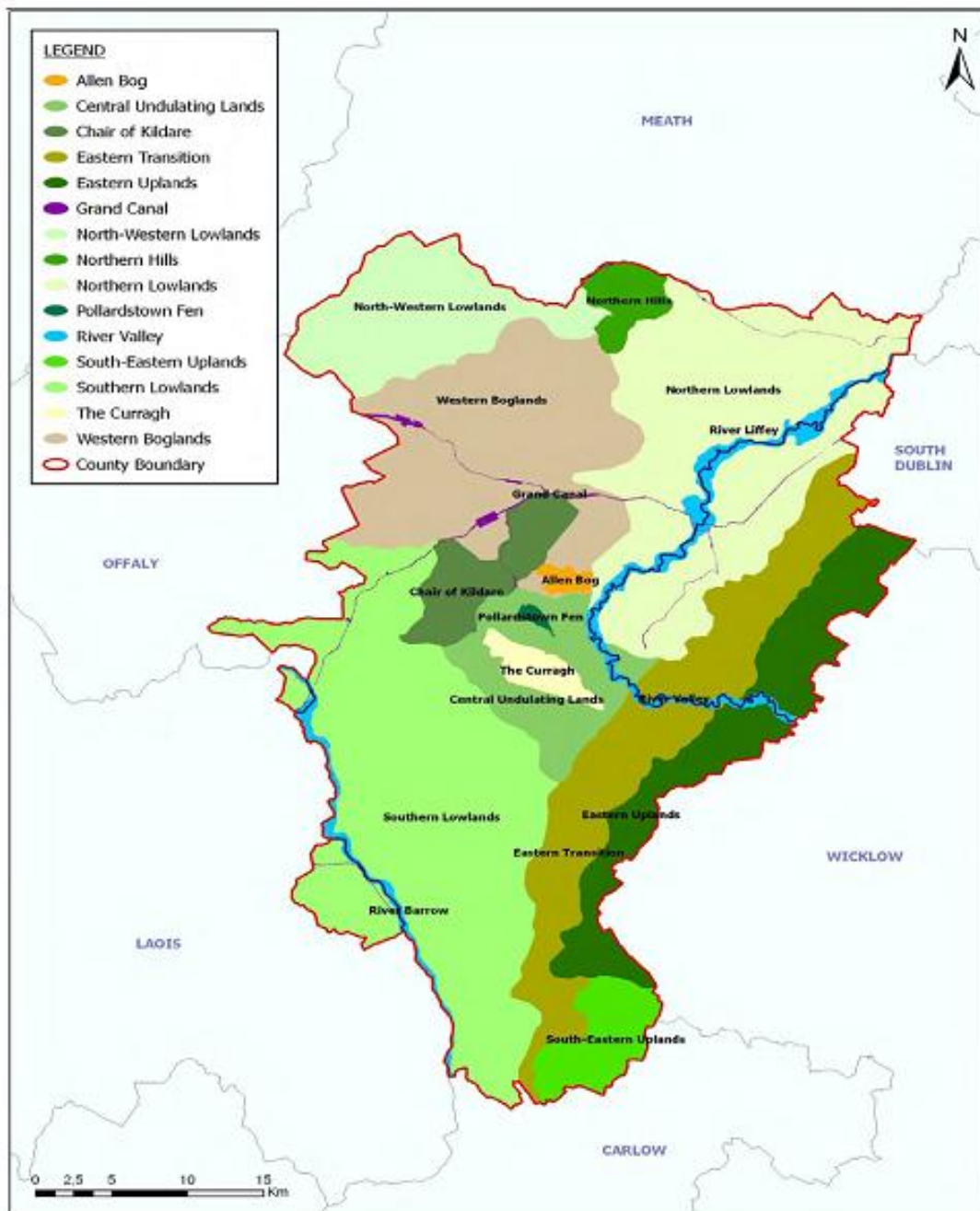
5.15 Community Gain / Benefit

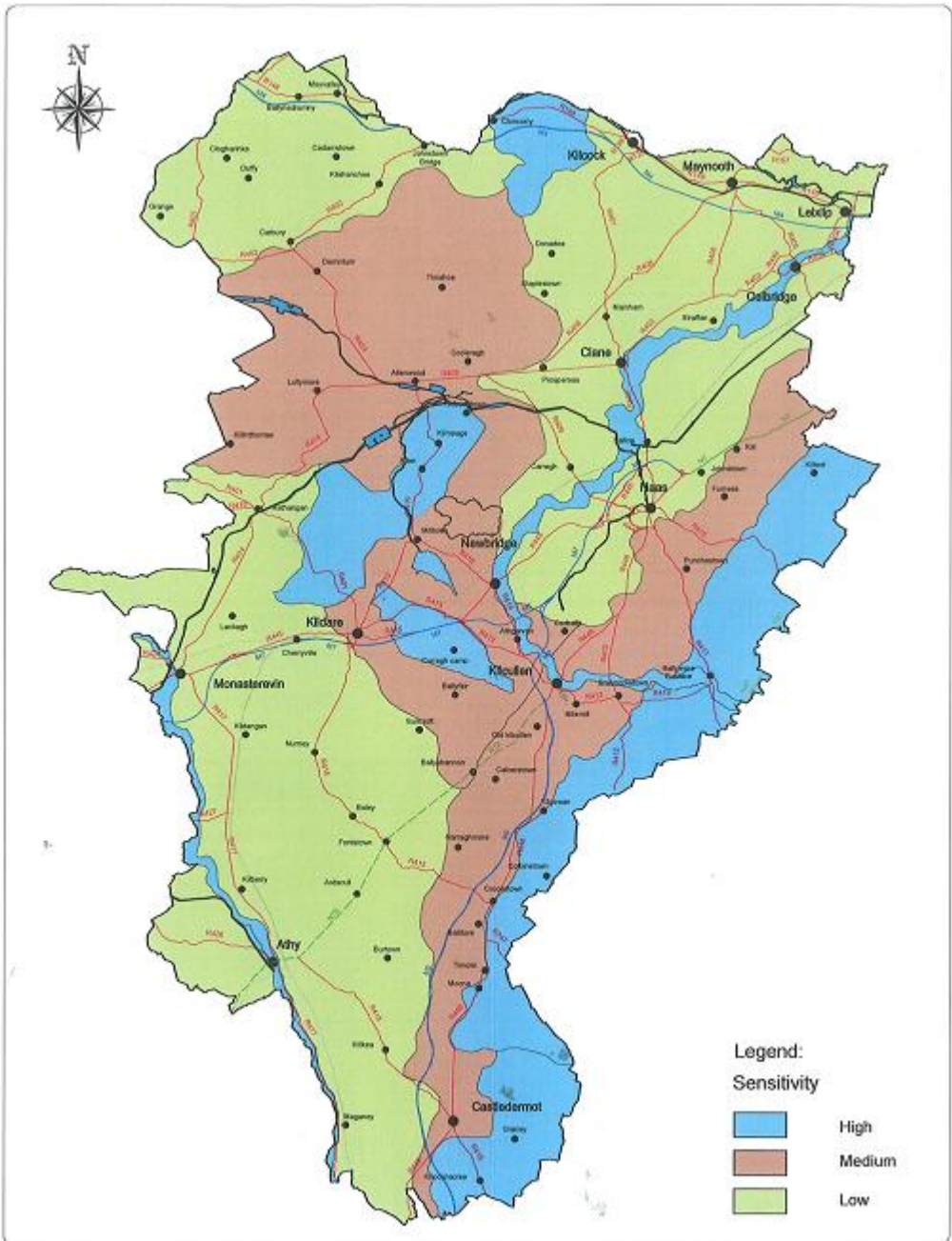

The EIS should outline clear proposals in relation to the public consultation initiatives proposed or undertaken as part of the application process. It should also detail any community involvement initiatives proposed as part of the development process and any community gain proposals for the duration of the development if completed.

6.0 Conclusion

As previously advised Kildare County Council will continue to provide input to the statutory planning process for the above project as provided for under the planning legislation.

Appendix 1

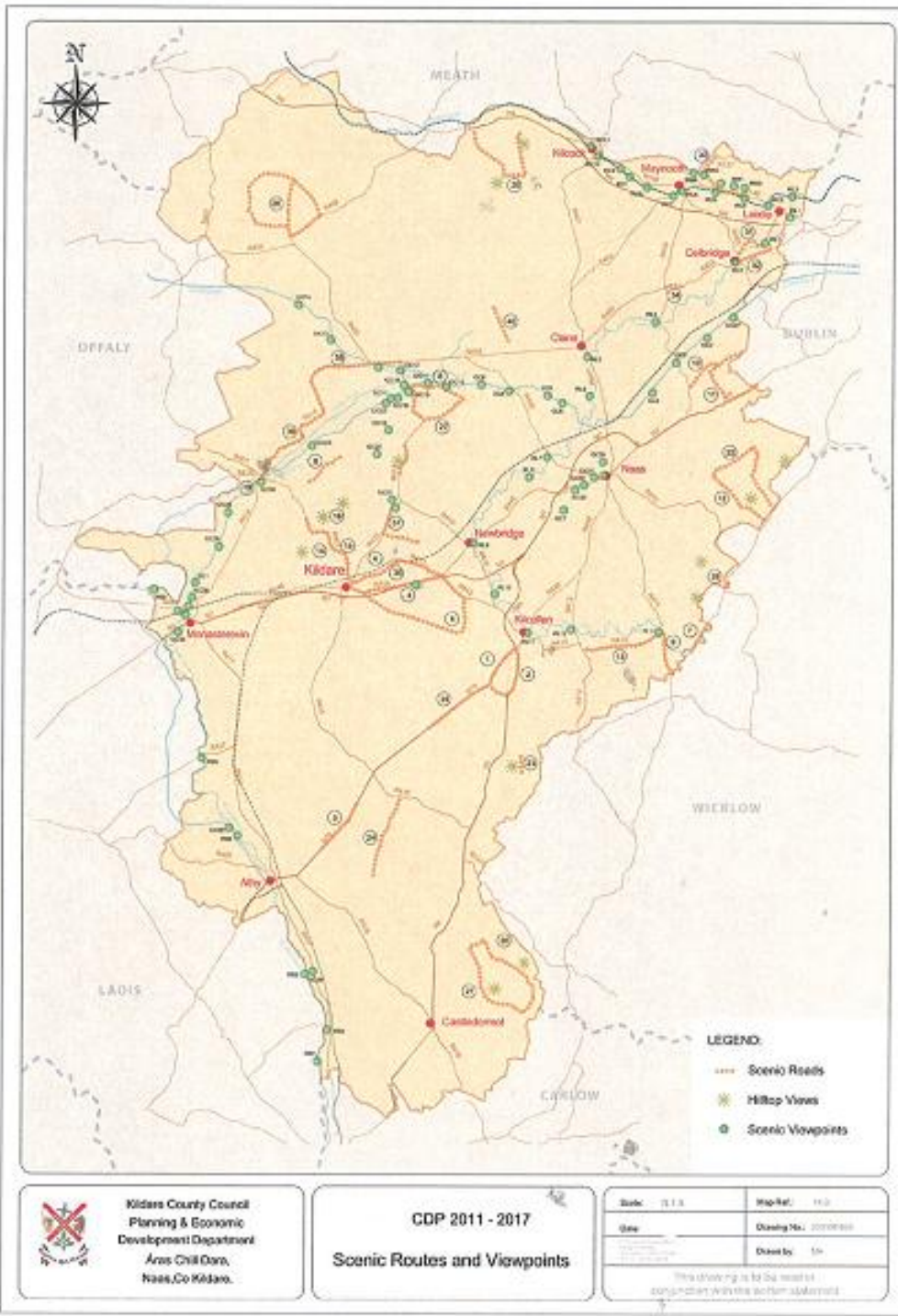


Kildare County Council
Planning & Economic
Development Department
Áras Chill Dara,
Naas, Co Kildare.

County Development Plan 2011 - 2017
Landscape Sensitivity Areas Map

Map Ref.: N.T.S.	Map Ref.: 14.2
Date: 2-May-2011	Drawing No.: 20009466
© Ordnance Survey Ireland. All rights reserved. License No. 200926224 (2009) County Council	Drawn by: B.R.
This drawing is to be read in conjunction with the written statement	



Kildare County Council
 Planning & Economic
 Development Department
 Áras Chill Dara,
 Naas, Co. Kildare.

Scenic Routes and Viewpoints

FEHILY TIMONEY & Co.	
Received by	
Date	
Action	
Distribution	19 NOV 2014 TFR.
Job No:	
Correspondence No:	H
Comment:	

Teach Naomh Máirtín / Bóthar Waterloo / Baile Átha Cliath 4
St. Martins House / Waterloo Road / Dublin 4
Tel: / Tel: +353 1 6602511 Facs: / Fax: + 353 1 668 0009

Ms. Tina Raleigh,
Fehily Timoney & Company,
Core House,
Pouladuff Road,
Cork.

Dáta | Date

Ár dTag | Our Ref.

Bhur dTag | Your Ref.

18 November, 2014

NRA14-91064

Q:\LE14\731\01\Let001\DMC\MT

Re: EIS Scoping for the proposed Maigne Windfarm in North County Kildare, County Offaly and South County Meath

Dear Ms. Raleigh,

The Authority wishes to advise that it is not in a position to engage directly with planning applicants in respect to proposed developments. The Authority will endeavour to consider and respond to planning applications referred to it given its status and duties as a statutory consultee under the Planning Acts. The approach to be adopted by the Authority in making such submissions or comments will seek to uphold official policy and guidelines as outlined in the Spatial Planning and National Roads Guidelines for Planning Authorities (DoECLG, 2012). Regard should also be had to other relevant guidance and circulars available at www.nra.ie.

The issuing of this correspondence is provided as best practice guidance only and does not prejudice the NRA's statutory right to make any observations, requests for further information, objections or appeals following the examination of any valid planning application referred.

With respect to EIS scoping issues, the recommendations indicated below provide only general guidance for the preparation of EIS, which may affect the National Roads Network.

The developer should have regard, *inter alia*, to the following;

- Consultations should be had with the relevant Local Authority/National Roads Design Office with regard to locations of existing and future national road schemes; **Leinster Orbital Route**,
- The Authority would be specifically concerned as to potential significant impacts the development would have on the motorway network and other national roads (and junctions with national roads) in the proximity of the proposed development,
- The developer should assess visual impacts from existing national roads,
- The developer should have regard to any Environmental Impact Statement and all conditions and/or modifications imposed by An Bord Pleanála regarding road schemes in the area. The developer should in particular have regard to any potential cumulative impacts,
- The developer, in conducting Environmental Impact Assessment, should have regard to the NRA DMRB and the NRA Manual of Contract Documents for Road Works,
- The developer, in conducting Environmental Impact Assessment, should have regard to the NRA's Environmental Assessment and Construction Guidelines, including the

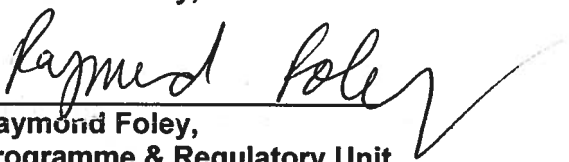
Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes (National Roads Authority, 2006),

- The EIS should consider the Environmental Noise Regulations 2006 (SI 140 of 2006) and, in particular, how the development will affect future action plans by the relevant competent authority. The developer may need to consider the incorporation of noise barriers to reduce noise impacts (see *Guidelines for the Treatment of Noise and Vibration in National Road Schemes* (1st Rev., National Roads Authority, 2004)),
- It would be important that, where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment be carried out in accordance with relevant guidelines, noting traffic volumes attending the site and traffic routes to/from the site with reference to impacts on the national road network and junctions of lower category roads with national roads. The Authority's Traffic and Transport Assessment Guidelines (2014) should be referred to in this regard. The scheme promoter is also advised to have regard to Section 2.2 of the NRA TTA Guidelines which addresses requirements for sub-threshold TTA.
- The designers are asked to consult the National Roads Authority's DMRB *Road Safety Audit* (NRA HD 19/12) to determine whether a Road Safety Audit is required,
- In the interests of maintaining the safety and standard of the national road network, the EIS should identify the methods/techniques proposed for any works traversing/in proximity to the national road network.
- In relation to haul route identification, the applicant/developer should clearly identify haul routes proposed and fully assess the network to be traversed. Separate structure approvals/permits and other licences may be required in connection with the proposed haul route.

Notwithstanding, any of the above, the developer should be aware that this list is non-exhaustive, thus site and development specific issues should be addressed in accordance with best practise.

I hope that the above comments are of use in your scoping process.

Yours sincerely,



Raymond Foley,
Programme & Regulatory Unit.

Sinead Timoney

From: Rebecca McKeon <rebecca.mckeon@opw.ie>
Sent: 19 December 2014 17:29
To: Sinead Timoney
Subject: Re: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Hi Sinead,
I have no further comments at this stage,
Many thanks,
Rebecca.

On 19/12/2014 08:52, Sinead Timoney wrote:

RE: Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Dear Ms. McKeon

I refer to the recent scoping report that was issued to you regarding the above mentioned Maighne Project. At the time the scoping document was produced the proposed connection to the national grid was not known. We are now aware of two potential connection points to the national grid in Woodlands County Meath and Maynooth in County Kildare. The final decision on the connection point to the grid will be made by EirGrid.

As part of the EIS for the Maighne Project, both proposed cable routes to the national grid will now be assessed. While both options will be assessed only one route will be utilised for the connection to the national grid.

Please find attached a figure which outlines both grid connection options. If you have any further comments on the scope of the EIS with regard to the inclusion of the cable options, we would be grateful if you could submit them in writing by post to the address provided on this letter, or by email to maighnewindfarmscoping@ftco.ie. We are hoping to submit the planning application for the proposed development in mid-January, therefore I would appreciate if you could forward any comments you may have prior to that.

Should you have any queries regarding Maighne Wind Farm, please do not hesitate to contact Ms. Tina Raleigh or email maighnewindfarmscoping@ftco.ie.

Yours sincerely,
Sinéad

Sinéad Timoney
Fehily Timoney and Company | Core House | Pouladuff Road | Cork | Ireland|

Tel: +353 21 496 4133 Mobile: +353 879399592 Fax: +353 21 496 4464
Mail to: sinead.timoney@ftco.ie | Web: www.fehilytimoney.ie
Skype: Sinead.Timoney

Winner CMG Design Building Awards
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- Project/Construction Management Company of the Year 2012
- Engineering Practice of the Year 2011
- Engineering Practice/Consultant of the Year 2010

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Kind Regards,

Rebecca McKeon | Planner MIPI

Architectural Services, The Office of Public Works | T 01-647 6329

To transmit large email attachments to me please use:
<https://filetransfer.opw.ie/filedrop/rebecca.mckeon@opw.ie>

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Sinead Timoney

From: Rebecca McKeon <rebecca.mckeon@opw.ie>
Sent: 04 November 2014 13:19
To: Maighne Windfarm Scoping
Subject: FAO Tina Raleigh

Dear Tina,

I am emailing with regard to the proposed Maighne Wind Farm in North County Kildare, County Offaly and South County Meath. I am requesting that the OPW be kept informed of the EIS & notified when it is prepared. Would it be possible at this stage to obtain a site plan of the proposed development?

I would appreciate it if my email address could be added to the list of stakeholders and consultees,

--
Kind Regards,

Rebecca McKeon | Planner MIPI
Architectural Services, The Office of Public Works | T 01-647 6329

To transmit large email attachments to me please use:
<https://filetransfer.opw.ie/filedrop/rebecca.mckeon@opw.ie>

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OPW - Looking to the future - Caring for the past

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Sinead Timoney

From: Colin Kennedy <colin.kennedy@2rn.ie>
Sent: 21 November 2014 16:52
To: Maighne Windfarm Scoping
Subject: RE: LE1473104_Maighne WF_RTE Telecoms

Dear Sinéad,

Thank you for your recent email outlining details of the proposed Maighne Wind Farm.

We have examined the proposal in relation to possible interference or disruption being caused to our microwave distribution network from the 51 no. wind turbines that are planned in various locations in counties Kildare and Meath. In this regard we do not anticipate any issues arising from this development as we do not have any microwave link paths near the proposed turbine locations. However, although the wind farm would be expected to pose a minimal risk of causing interference to Saorview television reception affecting those viewers who may be residing in the general vicinity of the turbines, nevertheless any such cases, should they arise, would obviously require effective mitigation measures to be implemented by the Developer. In this context, should this proposal proceed to the planning stage, then we would ask that the Developer agree to sign our standard wind farm Protocol Agreement which outlines the procedures for dealing with such interference cases. I can arrange to have this document prepared if requested.

Thank you for advising us of this wind farm proposal.

Kind regards,

Colin

Colin Kennedy
Frequency Planning Section



2rn, Block 'B', Cookstown Court, Old Belgard Road, Tallaght, Dublin 24, Ireland
Tel: [++353 \(0\)1 208 2261](tel:+353012082261)
RTE Transmission Network Ltd trading as "2rn"

On 13 November 2014 14:21, Sinead Timoney <sinead.timoney@ftco.ie> wrote:

Dear Colin,

Many thanks for taking my call yesterday afternoon. As discussed Element Power Ireland are proposing to develop Maighne Wind Farm consisting of wind turbines, with a maximum tip height of up to 169 metres to be developed and connected to the Irish grid for domestic purposes. Depending on the final assessment, the turbines will be located in counties Kildare and Meath. The exact output cannot be specified at this stage, however, ultimately slightly more or less than 125 MW of electricity will be generated by the wind farm feeding into the Irish National Grid. The electricity generated will be transmitted by a collector system of medium voltage (MV) underground cables to a proposed on-site sub-station. There will be no overhead lines required. The proposed development will also comprise the construction of new access tracks, the upgrading of existing access tracks, the construction of borrow pits, permanent meteorological mast, ancillary works and temporary construction site compounds.

Fehily Timoney & Company has been commissioned by Element Power Ireland Ltd. to prepare an Environmental Impact Statement (EIS) for the proposed development. To assist in the preparation of the EIS, I would appreciate it if you could assess the proposed turbine locations with regard to your telecommunications links and confirm that Maighne Wind Farm does not interfere with your service.

I completed the first page of the "RTÉ Frequency Planning – Windfarm Details Form", please find copy attached. The list of turbines wouldn't fit on the second page of the form therefore I have attached an excel spreadsheet that has the turbine co-ordinates in both the Irish National Grid (ING) format and in ITM format for ease of reference. I hope this is satisfactory.

I have not copied Mr. Johnny Evans of RTÉNL or windfarms@rte.ie on this email as you mentioned yesterday it wasn't required.

Should you require additional information or if you have any queries please do not hesitate to contact me. I would be grateful if you could copy all email correspondence to maighnewindfarmscoping@ftco.ie. The closing date for receipt of comments is Friday 21 November 2014.

Please note that the information in this email is confidential and should not be disclosed to any third party without the express written consent of Element Power Ireland Ltd.

Best regards,

Sinéad

Sinéad Timoney

Fehily Timoney and Company | Core House | Pouladuff Road | Cork | Ireland|

Tel: [+353 21 496 4133](tel:+353214964133) Mobile: [+353 879399592](tel:+353879399592) Fax: [+353 21 496 4464](tel:+353214964464)

Mail to: sinead.timoney@ftco.ie | Web: www.fehilytimoney.ie

Skype: Sinead.Timoney

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Sinead Timoney

From: Sinead Mallon <sinead.mallon@waterwaysireland.org>
Sent: 17 December 2014 15:47
To: Maighne Windfarm Scoping
Cc: Nigel Russell; John McKeown; Brian Mullan; Paula Treacy
Subject: Proposed Maighne Windfarm in North County Kildare and County Offaly and South County Meath

Your Ref: Q:/LE14/731/04/Let010/TPR/MG

Dear Ms Raleigh,

Your letter dated 08 December refers. As you may be aware, Waterways Ireland has met with representatives from Arup, Element Power and Fehily, Timoney & Company on two occasions to discuss the proposals for Maighne Windfarm and how they may impact on Waterways Ireland and we have scheduled to meet again early in the New Year. Notwithstanding issues raised at these meetings, we would make the following points following your recent correspondence:

- (1) Section 1.1.2, Page 1 of 38. It is noted, as reinforced in the covering letter, that two potential connection points to the national grid have been identified. If the northern point is adopted the crossing of the Royal Canal, at a canal cutting site, will need to be agreed subject to geotechnical criteria and suitable ground conditions.
- (2) Section 4.11, Page 19 of 38. Reference to structural assessment of canal bridges on proposed haul routes should be included.
- (3) Section 4.13.3, Page 25 of 38. Top of page should read 'Three canals, the Grand Canal (Main Line), the Grand Canal (Barrow Line) and the Royal Canal are found within the area ..., etc'.
- (4) Section 4.15.3, Page 28 of 38. Change script at the end of the 2nd paragraph as suggested in point (3) above.
- (5) Section 4.16.2, Page 29 of 28. Last sentence of first paragraph include Waterways Ireland along with IFI and relevant local authorities.
- (6) Section 4.16.3, Page 29 of 38. 2nd paragraph same as point (3) and (4) above.

More generally, it is imperative that the structural and waterproof integrity of the canals and their infrastructure is maintained and that the works do not obstruct navigation of the canals. From our meetings, your representatives will be aware that any proposed work on Waterways Ireland's property must be fully discussed and agreed with formal written agreements in place (details of the type of agreements and associated costs will be forwarded as agreed to Ger Breen, Arup). As this project progresses, Waterways Ireland will have to consult with additional WI staff, including Environment Section, but any matters arising from these internal consultations will be raised at one of our progress meetings with Arup, Element Power and Fehily, Timoney & Company.

I trust the above is in order but if you require clarification on any matter, please do not hesitate to contact me.

Kind regards,

Sinéad

Sinéad Mallon
Property & Legal Section
Waterways Ireland
2 Sligo Road
Enniskillen
BT74 7JY

Telephone +44 (0) 28 6634 6238
Fax +44 (0) 28 6634 6257
Email sinead.mallon@waterwaysireland.org

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Tina Raleigh

From: BCI Jesmond Harding <conservation.butterfly@gmail.com>
Sent: 18 January 2015 23:08
To: Maighne Windfarm Scoping
Subject: Proposed Maighne Wind Farm in Counties Kildare, Offaly and Meath.

Dear Tina,

I refer to our ref Q:/LE14/731/01/Let011/SAT/MG.

Having examined the documents your firm sent Butterfly Conservation Ireland. It appears that no Marsh Fritillary population is directly affected by the proposed development in Derrybrennan and Lullymore, County Kildare. We know of no population in the Drehid area or in County Meath. BCI is unaware of any Marsh Fritillary population in the vicinity of the proposed turbines in County Offaly but there are almost certainly Marsh Fritillary populations in Offaly.

However there may be negatives impacts on other species that occur in the vicinity of the proposed turbines, such as the Woodcock, a red listed bird (see <http://www.birdwatchireland.ie/LinkClick.aspx?fileticket=EjODk32LNcU%3D&tabid=178>) that has been frequently recorded in the Derrybrennan and Lullymore area.

I hope this is of assistance.

Regards,

Jesmond Harding, Secretary, Butterfly Conservation Ireland.

Mr. Jim Conway
Assistant Director
Southern & Eastern Assembly – Dublin Office,
Unit K28 Drinian Enterprise Park,
Swords Enterprise Park,
Feltrim Road,
Swords,
Co. Dublin.

Re Proposed Maighne Wind Farm in North County Kildare and County Offaly and South County Meath

Dear Jim,

I enclose a Notification and Scoping Report received today from Fehily Timoney Consultants, in relation to the proposed Maighne Wind Farm in Counties Kildare, Offaly and Meath.

I would be obliged if you could refer same to the Regional Planning Guidelines Officer for any observations on behalf of the Counties of Kildare and Meath. I am assuming a similar notification has been forwarded to the Midlands Office on behalf of the proposed developments in County Offaly.

Yours sincerely,



John J. Byrne,
Assistant Director
Southern & Eastern Regional Assembly – Mid-East Office.

Encl.

c.c. Ms. Tina Raleigh, Fehily Timoney & Company

FEHILY TIMONEY & Co.	
Received by	
Date	(TR)
Actor	Scanned TO TR
Distribution	14 NOV 2014
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Comment:	



15th December 2014

Ms. Tina Raleigh,
Technical Director,
Fehily Timoney & Company,
Core House,
Pouladuff Road,
Cork.

FEHILY TIMONEY & Co.	
Received by:	
Date:	
Action:	
Distribution:	17 DEC 2014 TPR
Job No:	
Correspondence No:	6
Comment:	

PROPOSED MAIGHNE WIND FARM IN COUNTIES KILDARE, OFFALY & MEATH

Dear Ms. Raleigh,

I refer to your letter dated 8th inst. and attached figure in relation to proposed grid connection options. As no sites within the SERBD are being considered for use, I have no observations to make.

Yours sincerely,

Patrick Kilfeather
Senior Fisheries Environmental Officer

2 February 2015

Element Power (Ireland) Ltd.,
Unit C, Building 4200,
Cork Airport Business Park,
Cork.
Attn. Mr. Kevin Hayes.

Dear Sirs,

We confirm that Element Power has consulted with Waterways Ireland regarding the Maighne Wind Farm Project which is to be located in Co. Kildare and Co. Meath. Element Power has consulted with us on the following possible developments which involve Waterways Ireland's property:

1. **An electrical cable crossing of the Grand Canal which might be installed under the canal using horizontal directional drilling (HDD):**

Waterways Ireland response

We are reluctant to allow drilling under the Grand Canal in the area of Shee Bridge / Bond Bridge as this might impact the integrity of the canal at that location but a crossing near Derrybrennan adjacent to Kilpatrick Bridge would be acceptable to Waterways Ireland subject to site investigation including trial holes and a HDD design which confirmed the continued integrity of the canal in the area.

2. **The use of a bridge belonging to Bord na Móna [Kilpatrick Bridge] which crosses the Grand Canal near Derrybrennan which we understand might be altered or upgraded for the project:**

Waterways Ireland response

If the bridge is to be upgraded in future as part of the project Waterways Ireland should be fully consulted on any upgrade works and will require a design which:

- i. Confirmed the integrity of the canal at that location;
- ii. Maintained the existing headroom for the canal and adjoining walkway.

We accept, subject to consultation on the design, that the cable mentioned in point 1 preceding might then be accommodated within the upgraded bridge structure.

3. **A cable crossing of the Royal Canal near Kilcock at Allen Bridge, which might be fitted underneath the bridge deck in parallel to the bridge beams or alternatively be installed by using horizontal directional drilling underneath the bridge:**

Waterways Ireland response

The placement of the cables underneath the bridge deck or within the footpath would be acceptable subject to a detailed design which confirmed that there would not be any impact on the integrity of the bridge structure, the existing headroom over the canal and towpath will not be compromised and that any proposed design will be aesthetically pleasing when viewed from under the bridge structure. A HDD crossing at this location would also be acceptable to Waterways Ireland subject to site investigation including trial holes and a HDD design which confirmed the continued integrity of the canal and bridge in the area.

4. **Crossing of the Grand and Royal Canals for haulage of materials during the construction phases of the project.**

Waterways Ireland response

We have provided Element Power with details of structural integrity assessments of relevant bridges over the canal infrastructure and anticipate that the selection of haulage routes for the project will respect the need to avoid certain bridges by heavily loaded haulage trucks.

5. **The construction of an access track not closer than 25m from the vertical edge of the canal at Cloncumber and borrow-pits within the Cloncumber wind cluster development with the cutting not nearer than 70m from the Grand Canal:**


Waterways Ireland response

This is acceptable to Waterways Ireland subject to geotechnical assessment confirming that the works will not impact on the integrity of the Grand Canal.

We continue to be in commercial discussions with Element Power regarding the above issues. We note that the detailed design of the above works will not be carried out until after planning permission has been granted. The final agreement between Waterways Ireland and Element Power will be subject to appropriate Waterways Ireland approvals, including valuation.

In the meantime, we agree that Element Power can show the above developments, where they impinge on lands owned by Waterways Ireland, in its planning application to An Bord Pleanála for the Maighne Wind-Farm Project.

Yours faithfully,



APPENDIX B3

Newspaper Advertisements

PLANNING APPLICATIONS

Planning and Development Acts 2000 to 2014
Notice of Direct Planning Application to An Bord Pleanála in Respect of a Strategic Infrastructure Development
County Kildare and County Meath

In accordance with section 37E of the Planning and Development Act 2000, as amended, Element Power Ireland Ltd. gives notice of its intention to make an application for permission to An Bord Pleanála in relation to the proposed development of Maighne Wind Farm in the townlands of:

County Kildare - Moyvally, Calf field, Ballyonan, Tanderagee, Royaloak, Ballynakill, Drumsru, Cappanargid, Bamaran, Cloncurry, Glenaree, Derybrennan, Lullymore West, Kilpatrick, Drummond, Ballybrack, Lullymore East, Nurney, Haggard, Ballyshannon, Coonagh, Ballinderry, Williamstown, Freagh, Cadamstown, Knockcor, Collinstown, Calfstown, Dreenan, Ballina, Ballynadrumny, Feighcullen, Cloncumber, Ballynakill Lower, Ballyteige North, Allenwood South, Ballynakill Upper, Derryvarroge, Clonagh, Ballynamullagh, Parsonstown, Kilmurry, Loughnacush, Killyon, Mucklon, Dysart, Clonkeeran, Coolree, Mulgeeth, Drehid, Hortland, Dunferth, Kilshanchoe, Kilkeaskin, Johnstown, Gorteen, Donadea, Donadea Demesne, Dunmurraghill, Baltracey, Kilnamoragh North, Derrycrib, Knockanally, Painestown, Hodgestown, Newtownmoneenluggagh, Loughtown, Killickaweeny, Nicholastown, Pitchfordstown, Cappagh, Killbrook, Killeighter, Cloncurry, Boycetown, Taghadoe, Donaghstown, Barreen, Derrinstown, Bryanstown, Kealstown, Graiguelin.

County Meath - Boolykeagh, Johnstown, Ballycarn, Dolanstown, Balfeaghan, Calgath, Kemmins Mill, Martinstown, Milltown, Phepotstown, Barstown, Mulhussey, Longtown, Jenkinstown, Warrenstown, Collistown, Cullendragh, Culcommon, Ballynare, Ribstown, Portan.

The proposed development will primarily consist of the following:

- i. Erection of up to 47 no. wind turbines with an overall tip height of up to 169m
- ii. Construction of foundations and hardstanding areas in respect of each turbine
- iii. Construction/upgrade of 9 no. site entrances from public roads
- iv. Construction of approximately 31km of new site access tracks and associated drainage
- v. Upgrade of approximately 10km of existing access tracks and, where required, upgrade of associated drainage
- vi. Excavation of 3 no. borrow pits
- vii. Establishment of 4 no. temporary construction site compounds and associated parking areas
- viii. Construction of drainage and sediment control systems
- ix. Construction of 1 no. electricity substation (which will operate at a voltage up to 220kV) including:
 - o 2 no. control buildings containing worker welfare facilities
 - o electrical infrastructure
 - o parking
 - o fencing
 - o appropriate landscaping
- x. Installation of approximately 75km of medium voltage (MV) underground cabling (which will operate at a voltage up to 33kV) between the proposed turbines and proposed on-site substation. Approximately 36km will be laid within the public roadway
- xi. Installation of high voltage (HV) underground cabling (which will operate at a voltage up to 220kV) between the proposed on-site substation and either the existing substation at Woodland, Co. Meath (totalling approximately 29km, of which approximately 28km will be laid within the public roadway) or the existing substation at Maynooth, Co. Kildare (totalling approximately 23km, of which approximately 17km will be laid in the public roadway)
- xii. Installation of joint bays along the cable route
- xiii. Installation of underground communication cables
- xiv. Installation of a permanent meteorological mast up to 100m in height
- xv. Temporary alterations to the public road at identified locations to accommodate the delivery of turbines
- xvi. Associated site works including landscaping
- xvii. Tree felling
- xviii. Peat excavation.
- xix. a 10 year permission and a 30 year operational life from the date of commissioning of the entire wind farm.

Whether the connection point to the national electricity transmission grid will be located at the Woodland or Maynooth substations will be determined by EirGrid plc, which is the statutory Transmission System Operator. Accordingly, the documentation submitted with this application for permission identifies and evaluates 2 no. HV grid connection routes (which will operate at a voltage up to 220kV). The 2 no. HV grid connection cable routes included in this application will connect the proposed Maighne Wind Farm on-site substation to either one of two existing substations located at Woodland, Co. Meath or Maynooth, Co. Kildare. However, only one of these routes will be constructed following the identification of the preferred connection point by the Transmission System Operator.

An Environmental Impact Statement and a Natura Impact Statement have been prepared in respect of this application.

The planning application, the Environmental Impact Statement and Natura Impact Statement may be inspected free of charge or purchased on payment of a specified fee (which fee shall not exceed the reasonable cost of making such copy) during public opening hours for a period of seven weeks commencing on 16 April 2015 at the following locations:

- The Offices of An Bord Pleanála, 64 Marlborough Street, Dublin 1
- The Offices of Kildare County Council, Planning Department, Áras Chill Dara, Devoy Park, Naas, County Kildare
- The Offices of Meath County Council, Planning Department, Buvinda House, Dublin Road, Navan, County Meath

The application may also be viewed/downloaded on the following website: www.maighnewindfarm.ie

Submissions or observations may be made only to An Bord Pleanála ('the Board') 64 Marlborough Street, Dublin 1 during the above-mentioned period of seven weeks relating to -

- (i) the implications of the proposed development for proper planning and sustainable development,
- (ii) the likely effects on the environment of the proposed development, and
- (iii) the likely significant effects or adverse effects on the integrity of a European site,

if carried out.

Any submissions/observations must be accompanied by a fee of €50 (except for certain prescribed bodies) and must be received by the Board not later than 5.30 p.m. on 4 June 2015. Such submissions/observations must also include the following information:

- the name of the person making the submission or observation, the name of the person acting on his or her behalf, if any, and the address to which any correspondence relating to the application should be sent,
- the subject matter of the submission or observation, and
- the reasons, considerations and arguments on which the submission or observation is based in full. (Article 217 of the Planning and Development Regulations refer.)

Any submissions or observations which do not comply with the above requirements cannot be considered by the Board.

The Board may at its absolute discretion hold an oral hearing on the application. (For further details see 'A Guide to Public Participation in Strategic Infrastructure Development' on the Board's website www.pleanala.ie)

The Board may in respect of an application for permission decide to -

- (a)
 - (i) grant the permission, or
 - (ii) make such modifications to the proposed development as it specifies in its decision and grant permission in respect of the proposed development as so modified, or
 - (iii) grant permission in respect of part of the proposed development (with or without specified modifications of it of the foregoing kind),

and any of the above decisions may be subject to or without conditions, or

- (b) refuse to grant the permission.

Any enquiries relating to the application process should be directed to the Strategic Infrastructure Development Section of An Bord Pleanála (Tel. 01-8588100)

- A person may question the validity of any such decision by the Board by way of an application for judicial review, under Order 84 of the Rules of the Superior Courts (S.I. No. 15 of 1986, as amended), in accordance with section 50 of the Planning and Development Act, 2000, as amended.
- Practical information on the review mechanism can be accessed under the heading Publications - Judicial Review Notice on the Board's website www.pleanala.ie or on the Citizens Information Service website www.citizensinformation.ie

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Planning

Planning and Development Acts 2000 to 2014

Notice of Direct Planning Application to An Bord Pleanála in Respect of a Strategic Infrastructure Development

County Kildare and County Meath

In accordance with section 37E of the Planning and Development Act 2000, as amended, Element Power Ireland Ltd. gives notice of its intention to make an application for permission to An Bord Pleanála in relation to the proposed development of Maignhe Wind Farm in the townlands of:

County Kildare - Moyvally, Calf field, Ballyonan, Tanderagee, Royaloak, Ballynakill, Drumsru, Capanargid, Barnaran, Cloncurry, Glenaree, Derrybrennan, Lullymore West, Kilpatrick, Drummond, Ballybrack, Lullymore East, Nurney, Haggard, Ballyshannon, Coonagh, Ballinderry, Williamstown, Freagh, Cadamstown, Knockcor, Collinstown, Calfstown, Dreenan, Ballina, Ballynadrumny, Feighcullen, Cloncumber, Ballynakill Lower, Ballyteige North, Allenwood South, Ballynakill Upper, Derryvarroge, Clonagh, Ballynamullagh, Parsonstown, Kilmurry, Loughnacush, Killyon, Mucklon, Dysart, Clonkeeran, Coolree, Mulgeeth, Dredid, Hortland, Dunferth, Kilshanchoe, Kilkeaskin, Johnstown, Gorteen, Donadea, Donadea Demesne, Dunmurraghill, Baltracey, Kilnamoragh North, Derrycorb, Knockanally, Painestown, Hodgestown, Newtownmoneenluggagh, Loughtown, Killeekaweeny, Nicholastown, Pitchfordstown, Cappagh, Killbrook, Killeighter, Cloncurry, Boycetown, Taghadoe, Donaghstown, Barreen, Derrinstown, Bryanstown, Kealstown, Graiguelin.

County Meath - Boolykeagh, Johnstown, Ballycarn, Dolanstown, Balfeaghan, Calgath, Kemmins Mill, Martinstown, Milltown, Phepotstown, Barstown, Mulhussey, Longtown, Jenkinstown, Warrenstown, Collistown, Cullendragh, Culcommon, Ballynare, Ribstown, Portan.

The proposed development will primarily consist of the following:

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- v. Upgrade of approximately 10km of existing access tracks and, where required, upgrade of associated drainage
- vi. Excavation of 3 no. borrow pits
- vii. Establishment of 4 no. temporary construction site compounds and associated parking areas
- viii. Construction of drainage and sediment control systems
- ix. Construction of 1 no. electricity substation (which will operate at a voltage up to 220kV) including:
 - 2 no. control buildings containing worker welfare facilities
 - electrical infrastructure
 - parking
 - fencing
 - appropriate landscaping
- x. Installation of approximately 75km of medium voltage (MV) underground cabling (which will operate at a voltage up to 33kV) between the proposed turbines and proposed on-site substation. Approximately 36km will be laid within the public roadway
- xi. Installation of high voltage (HV) underground cabling (which will operate at a voltage up to 220kV) between the proposed on-site substation and either the existing substation at Woodland, Co. Meath (totalling approximately 29km, of which approximately 28km will be laid within the public roadway) or the existing substation at Maynooth, Co. Kildare (totalling approximately 23km, of which approximately 17km will be laid in the public roadway)
- xii. Installation of joint bays along the cable route
- xiii. Installation of underground communication cables
- xiv. Installation of a permanent meteorological mast up to 100m in height
- xv. Temporary alterations to the public road at identified locations to accommodate the delivery of turbines
- xvi. Associated site works including landscaping
- xvii. Tree felling
- xviii. Peat excavation.
- xix. a 10 year permission and a 30 year operational life from the date of commissioning of the entire wind farm.

Whether the connection point to the national electricity transmission grid will be located at the Woodland or Maynooth substations will be determined by EirGrid plc, which is the statutory Transmission System Operator. Accordingly, the documentation submitted with this application for permission identifies and evaluates 2 no. HV grid connection routes (which will operate at a voltage up to 220kV). The 2 no. HV grid connection cable routes included in this application will connect the proposed Maignhe Wind Farm on-site substation to either one of two existing substations located at Woodland, Co. Meath or Maynooth, Co. Kildare. However, only one of these routes will be constructed following the identification of the preferred connection point by the Transmission System Operator.

An Environmental Impact Statement and a Natura Impact Statement have been prepared in respect of this application.

The planning application, the Environmental Impact Statement and Natura Impact Statement may be inspected free of charge or purchased on payment of a specified fee (which fee shall not exceed the reasonable cost of making such copy) during public opening hours for a period of seven weeks commencing on 16 April 2015 at the following locations:

- The Offices of An Bord Pleanála 64 Marlborough Street, Dublin 1
- The Offices of Kildare County Council, Planning Department, Áras Chill Dara, Devoy Park, Naas, County Kildare
- The Offices of Meath County Council, Planning Department, Buvinda House, Dublin Road, Navan, County Meath

The application may also be viewed/downloaded on the following website: www.maignhewindfarm.ie

Submissions or observations may be made only to An Bord Pleanála ('the Board') 64 Marlborough Street, Dublin 1 during the above-mentioned period of seven weeks relating to -

- (i) the implications of the proposed development for proper planning and sustainable development,
- (ii) the likely effects on the environment of the proposed development, and
- (iii) the likely significant effects or adverse effects on the integrity of a European site, if carried out.

Any submissions/observations must be accompanied by a fee of €50 (except for certain prescribed bodies) and must be received by the Board not later than 5.30 p.m. on 4 June 2015. Such submissions/observations must also include the following information:

- the name of the person making the submission or observation, the name of the person acting on his or her behalf, if any, and the address to which any correspondence relating to the application should be sent,
 - the subject matter of the submission or observation, and
 - the reasons, considerations and arguments on which the submission or observation is based in full.
- (Article 217 of the Planning and Development Regulations refer.)**

Any submissions or observations which do not comply with the above requirements cannot be considered by the Board.

The Board may at its absolute discretion hold an oral hearing on the application. (For further details see 'A Guide to Public Participation in Strategic Infrastructure Development' on the Board's website www.pleanala.ie)

The Board may in respect of an application for permission decide to -

- (a)
 - (i) grant the permission, or
 - (ii) make such modifications to the proposed development as it specifies in its decision and grant permission in respect of the proposed development as so modified, or
 - (iii) grant permission in respect of part of the proposed development (with or without specified modifications of it of the foregoing kind),

and any of the above decisions may be subject to or without conditions, or

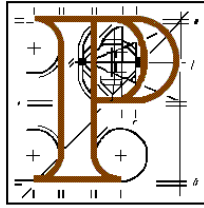
- (b) refuse to grant the permission.

Any enquiries relating to the application process should be directed to the Strategic Infrastructure Development Section of An Bord Pleanála (Tel. 01-8588100)

- A person may question the validity of any such decision by the Board by way of an application for judicial review, under Order 84 of the Rules of the Superior Courts (S.I. No. 15 of 1986, as amended), in accordance with section 50 of the Planning and Development Act, 2000, as amended.
- Practical information on the review mechanism can be accessed under the heading Publications - Judicial Review Notice on the Board's website www.pleanala.ie or on the Citizens Information Service website www.citizensinformation.ie

APPENDIX B4
Inspectors Report

An Bord Pleanála



Inspector's Report

SID Pre-Application Ref:	09. PC0186
Proposed Development:	Windfarm consisting of up to 47 turbines.
Location:	North County Kildare and South County Meath
Prospective Applicant:	Element Power Limited
Planning Authorities:	Kildare County Council and Meath County Council
Inspector:	Brendan Wyse
Site Inspection:	6 th December, 2014.

1.0 INTRODUCTION

- 1.1** The Board received a request on 13th October, 2014 from Element Power Limited to enter pre-application consultations under Section 37B, Planning and Development Act 2000 (as amended) in relation to the subject proposed development.
- 1.2** Meetings were held on 4th November 2014, 23rd January 2015 and 13th February, 2015 with the prospective applicants and on 4th February, 2015 with Kildare County Council – records on file.
- 1.3** In addition to the documentation received on 13th October, 2014 and conveyed at the various meetings further documentation was also received from the prospective applicants on the 28th October 2014; 31st October 2014; 27th November 2014; 10th December 2014; and 24th February 2015 – copies on file.
- 1.4** The SID Board issued Directions in relation to the proposed development on 22nd October, 2014 and 9th January, 2015.
- 1.5** The prospective applicants formally requested closure of the pre-application consultation process in the letter dated and received on 24th February 2015.

2.0 THE PROPOSED DEVELOPMENT

- 2.1** The proposal is for a wind farm development connecting to the Irish grid under Gate 3 grid connection capacity.
- 2.2** While initially proposed to comprise up to 55 turbines on a large number of sites across North County Kildare, County Offaly and South County Meath, and with a wind power generation capacity of up to 125MW, the project was being refined during the period of the pre-application consultation process.
- 2.3** The proposal that is to be the subject of the SID application is now described as a wind farm of up to 47 turbines in 5 no. clusters located in North County Kildare (45 turbines) and South County Meath (2 turbines) – see, in particular, submission/presentation conveyed at the second meeting with the Prospective Applicants on 23rd January, 2015. The turbines would have a maximum height of 169 metres. The turbine clusters would each be connected via underground cables (33kV), mostly along the public road network to a single substation at Drehid. There will be a single, onward, underground connection to the national grid, also via the public road network. While this latter connection is yet to be determined two options have been identified, at Woodlands substation (County Meath) and a substation at

Maynooth (County Kildare), and both will be included in the application and addressed in the EIS – see, in particular, submission received on 10th December, 2014.

- 2.4 The development will also comprise; new/upgraded access tracks; borrow pits (4 no.); permanent meteorological mast; ancillary works; and temporary construction site compounds.
- 2.5 The proposal is put forward as a single project and is to be constructed in a single phase.
- 2.6 The sites originally formed part of the Greenwire Project. That project will not be progressed until sometime into the future.

3.0 THE SITE LOCATION

- 3.1 As indicated the site for the project is located across North County Kildare and South County Meath. The area extends from just north of the M4, in the general vicinity of the villages of Longwood and Enfield, southwards across North East County Kildare, in the general vicinity of Edenderry to the west and the villages of Robertstown and Prosperous to the south-east.
- 3.2 Topographically the area is relatively flat. It generally comprises a mix of good farmland, predominating towards the north, and commercially worked bogland, associated with Bord na Mona's operations across the Bog of Allen, predominating towards the south. A particular feature is the relatively high density of single, road frontage housing, especially towards the south and east. There are also attractive canal environments, the Royal Canal to the north and, in particular, the Grand Canal to the south, including the linkages to the Barrow system.

4.0 PLANNING POLICY CONTEXT

4.1 Kildare County Development Plan 2011-2017

No Wind Energy Development Strategy.

Includes broad policy/objectives in relation to renewable energy. Assessment based on these and other relevant policy/objectives e.g. economic, landscape etc.

4.2 Meath County Development Plan 2013-2019

No Wind Energy Development Strategy.

Includes broad policy/objectives in relation to renewable energy. Assessment based on these and other relevant policies/objectives e.g. economic, landscape etc.

5.0 THE PROSPECTIVE APPLICANTS CASE IN RELATION TO STRATEGIC INFRASTRUCTURE

The key elements of the Prospective Applicants submission are as follows:

- The proposed development satisfies Class 1, Seventh Schedule of the Act, in that it includes in excess of 25 turbines with an output of more than 50 MW.
- It satisfies Section 37A(2)(a) and (b) of the Act in that:
 - It would contribute significantly to Ireland's 2020 renewable energy targets.
 - It would be of economic/strategic importance to the State.
 - It complies with the Strategic Goals of Renewable Energy Strategy 2012-2020, Department of Communications, Energy and Natural Resources, June 2012.
 - It would contribute up to c.3% of the wind energy required to meet the targets.
 - It would be one of the largest wind farms to connect to the Irish grid.
 - It would provide the equivalent of 187,000 tonnes saved CO₂ per year.
 - It would be of strategic economic and social importance to the regions due to the creation of up to 225 construction jobs and up to 60 long term jobs.
 - It will provide for substantial income generation for the region via landowner rents, local authority rates and a significant community contribution scheme.
 - It will contribute substantially to the fulfilment of objectives in the National Spatial Strategy (NSS) and the Regional Planning Guidelines (RPG).

6.0 CONSULTATIONS – SUMMARY OF KEY ISSUES AND ADVICE

The main issues discussed at the consultation meetings and documented in the records of the meetings and in other correspondence received and which will be important considerations in determining the application include the following:

- The question as to whether or not the proposed development could be properly considered to constitute a single project for the purposes of making a SID application. This was raised initially in the context of the proposal as first put forward comprising up to 55 turbines on in excess of 20 individual sites across the three counties of Kildare, Meath and Offaly. As indicated the project was subsequently refined and now comprises a wind farm of up to 47 turbines on 7 individual sites (described as 5 clusters) and wholly within counties Kildare and Meath. Having regard to these refinements and to the proposal that each cluster would be connected to a single substation, with a single onward connection to the national grid, the Board advised that the proposed development could be accepted as a single project.
- The Board, noting the dispersed nature of the proposed development, queried the appropriateness and sustainability of the proposed approach in a relatively flat rural landscape with a high density of housing development.
- The Board advised that the consideration of alternatives in the EIS should include the alternative of locating the proposed development at a single geographic location.
- The Board indicated its concerns in relation to the extensive network of cable laying in/along public roads, both in terms of connections to the substation and the onward connection to the grid. Kildare County Council raised similar concerns with a particular focus on the possible impacts on road structure, implications for in road services and infrastructure developments in the future and cost implications for the local authority. The Council also suggested that alternative routes exist that would avoid the use of local roads.
- It was noted that a Natura Impact Statement (NIS) will be included in the application.
- The issue of cumulative impacts, particularly in relation to other wind farms in the area and impacts on the local community. Possible development on nearby Bord na Mona lands would also need to be considered.

- The possible perception that the proposed development is part of the Greenwire Project. The Prospective Applicants emphasised that the proposal is for the Irish grid only and that the Board could condition any permission in this regard.
- Landscape/heritage/tourism impacts, including in the vicinity of the canal environments.
- Possible impacts on motorway traffic (M4) due to proximity of turbines. The Prospective Applicants referred to consultations with the National Roads Authority (NRA).
- The landscape sensitivity ratings for the area of North Kildare in which the proposed development is to be sited as provided for in the Kildare County Development Plan. Noted that the Macro Environmental Sensitivity Map indicates the general area as within the 'most sensitive' category.
- The need to address issues of geology and slope stability by reference, in particular, to the alluvial sands close to the Barrow and the structural stability of the boglands.
- Possible impacts in relation to air safety and navigation (Department of Defence/Irish Aviation Authority/Western Aerodrome). In this regard P.A. Ref. 13/702, ABP Ref. 09.243523, an October 2015 refusal of permission for a wind monitoring mast at a site at Timahoe South Bog, Coolcarrigan, located within the proposed application area, was noted – file attached. The reasons for refusal related to; negative impacts on air navigability and the utility of the area for flight operations and training; increased risk of airspace infringements; and risk to the safety of air traffic. These issues were raised by the Department of Defence in submissions to the planning authority on the application specifically in relation to operations associated with Casement Aerodrome, located due east in South County Dublin.

It should be noted that subsequent to the prospective applicant's letter of 24th February 2015, requesting closure of the pre-application process, the Board sought a further meeting to discuss this case and its possible implications for the proposed application. The prospective applicants indicated that they did not consider that a further meeting was necessary as they had already addressed the issue and would also be dealing with it in the application.

- Possible impacts on the equine industry in North Kildare.
- The Board stressed the importance of consultation, with the public, the planning authorities, prescribed bodies and other relevant bodies.

7.0 ASSESSMENT

7.1 Seventh Schedule

7.1.2 Class 1, Energy Infrastructure, Seventh Schedule of the Act, includes the following:

“An installation for the harnessing of wind power for energy production (a wind farm) with more than 25 turbines or having an output of greater than 50MW”.

7.1.3 As the proposed development comprises up to 47 turbines with an output of up to 125MW it clearly constitutes a Class 1 development.

7.2 SID Qualification under Section 37A(2)

7.2.1 Section 37A(2) sets down the following criteria which must be met in order for a seventh Schedule development to be considered SID:

- a) *The development would be of strategic or social importance to the State or the region in which it would be situate,*
- b) *The development would contribute substantially to the fulfilment of any of the objectives in the National Spatial Strategy or in any regional spatial and economic strategy in force in respect of the area or areas in which it would be situate,*
- c) *The development would have a significant effect on the area of more than one planning authority.*

7.2.2 By reference to (a) above the proposed development is significant due to its' scale and for the reasons outlined by the prospective applicants and summarised at Section 5.0 above. In particular, being one of the largest wind farms to connect to the national grid, it would make a significant contribution to Ireland's 2020 renewable energy targets and to the reduction of CO2 emissions. I consider, therefore, that the proposal satisfies criteria (a).

7.2.3 By reference to (b) above the National Spatial Strategy (NSS) refers to the need for a reliable, secure and diverse energy supply. The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 include strategic recommendations indicating support for the 2020 renewable energy targets, low carbon sustainable renewable energy systems and the Wind Energy Guidelines (PIR 26/27/28). For similar reasons to those referred to above I consider, therefore, that the proposal also satisfies criteria (b).

7.2.4 By reference to (c) above the proposed wind farm would straddle the boundary between counties Kildare and Meath. Although only two of the turbines would be located in the latter one of the potential connection routes to the grid

(Woodlands) traverses the county. It could be argued, therefore, that the proposed development would have a significant effect on the area of more than one planning authority. I note, however, that the prospective applicants have not sought to rely on criteria (c) and, on balance, I would not be inclined to either.

7.2.5 As only one of the criteria (a), (b) or (c) needs to be satisfied it is my conclusion that the proposed development is SID.

8.0 RECOMMENDATION

I recommend that the Board should decide that the proposed development is strategic infrastructure development for the following reasons and considerations:

REASONS AND CONSIDERATIONS

Having regard to the nature and scale of the proposed wind farm development it is considered to fall within Class 1, Energy Infrastructure, Seventh Schedule, and within the terms of Section 37A(2) paragraphs (a) and (b), Planning and Development Act 2000 (as amended). It is the opinion of the Board that the development would be of strategic importance to the State and the region within which it would be situate and that it would contribute substantially to the fulfilment of objectives of the National Spatial Strategy and of the Regional Planning Guidelines for the Greater Dublin Area 2010-2022.

PRESCRIBED BODIES

The following is a schedule of prescribed bodies considered relevant for the purposes of Section 37E(3)(c) of the Act:

- (a) Minister for the Environment, Community and Local Government
- (b) Minister for Arts, heritage and the Gaeltacht
- (c) Minister for Communications, Energy and Natural Resources
- (d) Kildare County Council
- (e) Meath County Council
- (f) National Roads Authority
- (g) Heritage Council

- (h) An Taisce
- (i) An Chomhairle Ealaíon
- (j) Fáilte Ireland
- (k) Inland Fisheries Ireland
- (l) Waterways Ireland
- (m) Irish Aviation Authority
- (n) Commission for Energy Regulation
- (o) Irish Rail
- (p) Railway Safety Commission

Other bodies that should be notified of the application include:

- (i) Geological Survey
- (ii) Department of Defence
- (iii) Irish Water
- (iv) Commissioners of Public Works

**B. Wyse,
Assistant Director of Planning.**

March, 2015.

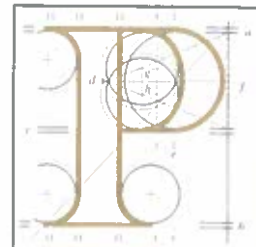
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APPENDIX B5

Letter of Determination

Our Ref: 09.PC0186
P.A.Reg.Ref:

An Bord Pleanála



Your Ref:

Kevin O'Donovan
Element Power Ireland Limited
Unit 4200
Cork Airport Business Park
Cork

31st March 2015

**Re: Proposed Wind Farm consisting of up to 47 Turbines in
North County Kildare and South County Meath**

Dear Sir,

Please be advised that following consultations under section 37B of the Planning and Development Act, 2000 as amended, the Board hereby serves notice under section 37B(4)(a) that it is of the opinion that the proposed development is considered to fall within Class 1, Energy Infrastructure, Seventh Schedule, and within the terms of section 37A(2)(a) and (b) of the Planning and Development Act, 2000, as amended. Accordingly, the Board has decided that the proposed development would be strategic infrastructure within the meaning of section 37A of the Planning and Development Act, 2000, as amended. Any application for permission for the proposed development must therefore be made directly to An Bord Pleanála under section 37E of the Act.

Please also be informed that the Board considers that the pre-application consultation process in respect of this proposed development is now closed.

Attached is a list of prescribed bodies to be notified of the application for the proposed development.

In accordance with section 146(5) of the Planning and Development Act, 2000 as amended, the Board will make available for inspection and purchase at its offices the documents relating to the decision within 3 working days following its decision. This information is normally made available on the list of decided cases on the website on the Wednesday following the week in which the decision is made.

The attachment contains information in relation to challenges to the validity of a decision of An Bord Pleanála under the provisions of the Planning and Development Act, 2000, as amended.

If you have any queries in relation to the matter please contact the undersigned officer of the Board. Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

Sinead McInerney
Executive Officer
Direct Line: 01-8737295

ADHOC/PC0186/10

Judicial review of An Bord Pleanála decisions under the provisions of the Planning and Development Act, 2000, as amended

A person wishing to challenge the validity of a Board decision may do so by way of judicial review only. Sections 50, 50A and 50B of the Planning and Development Act 2000 (as substituted by section 13 of the Planning and Development (Strategic Infrastructure) Act 2006, as amended/substituted by sections 32 and 33 of the Planning and Development (Amendment) Act 2010 and as amended by sections 20 and 21 of the Environment (Miscellaneous Provisions) Act 2011) contain provisions in relation to challenges to the validity of a decision of the Board.

The validity of a decision taken by the Board may only be questioned by making an application for judicial review under Order 84 of The Rules of the Superior Courts (S.I. No. 15 of 1986). Sub-section 50(6) of the Planning and Development Act 2000 requires that subject to any extension to the time period which may be allowed by the High Court in accordance with subsection 50(8), any application for judicial review must be made within 8 weeks of the decision of the Board. It should be noted that any challenge taken under section 50 may question only the validity of the decision and the Courts do not adjudicate on the merits of the development from the perspectives of the proper planning and sustainable development of the area and/or effects on the environment. Section 50A states that leave for judicial review shall not be granted unless the Court is satisfied that there are substantial grounds for contending that the decision is invalid or ought to be quashed and that the applicant has a sufficient interest in the matter which is the subject of the application or in cases involving environmental impact assessment is a body complying with specified criteria.

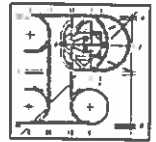
Section 50B contains provisions in relation to the cost of judicial review proceedings in the High Court relating to specified types of development (including proceedings relating to decisions or actions pursuant to a law of the state that gives effect to the public participation and access to justice provisions of Council Directive 85/337/EEC i.e. the EIA Directive and to the provisions of Directive 2001/12/EC i.e. Directive on the assessment of the effects on the environment of certain plans and programmes). The general provision contained in section 50B is that in such cases each party shall bear its own costs. The Court however may award costs against any party in specified circumstances. There is also provision for the Court to award the costs of proceedings or a portion of such costs to an applicant against a respondent or notice party where relief is obtained to the extent that the action or omission of the respondent or notice party contributed to the relief being obtained.

General information on judicial review procedures is contained on the following website, www.citizensinformation.ie.

Disclaimer: The above is intended for information purposes. It does not purport to be a legally binding interpretation of the relevant provisions and it would be advisable for persons contemplating legal action to seek legal advice.

List of Prescribed Bodies

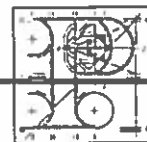
An Bord Pleanála



Case Reference/Description	09.PC0186 Proposed Wind Farm consisting of up to 47 Turbines in North County Kildare and South County Meath
Case Type:	Section 37E of the Planning and Development Act, 2000 as amended

The prospective applicant is advised to have regard to article 213 of the Planning and Development Regulations, 2001, as amended, and the following is the list of prescribed bodies to be notified of the application:

- Minister for the Environment, Community and Local Government
- Minister for Arts, Heritage and the Gaeltacht
- Minister for Communications, Energy and Natural Resources
- Kildare County Council
- Meath County Council
- National Roads Authority
- Heritage Council
- An Taisce
- An Chomhairle Ealaíon
- Fáilte Ireland
- Inland Fisheries Ireland
- Waterways Ireland
- Irish Aviation Authority
- Commission for Energy Regulation
- Irish Rail
- Railway Safety Commission
- Health Service Executive
- Offaly County Council
- Irish Water



List of Prescribed Bodies

Other bodies that should be notified of the application include:

- (i) Geological Survey of Ireland
- (ii) Department of Defence
- (iii) Commissioners of Public Works

APPENDIX B6

Public Information Notice

Element Power Ireland / Coillte

is hosting a

Public Information Day

on the proposed

Maighne Wind Farm

North Co. Kildare &
South Co. Meath

in the

**Hamlet Court Hotel,
Johnstownbridge,
Enfield**

on

Tuesday, Nov 18th

**Doors open from
4pm to 8pm**

Element Power Ireland in conjunction with Coillte will be hosting a public information day on the proposed Maighne wind farm in the Hamlet Court Hotel, Johnstownbridge, Enfield on Tuesday, Nov 18th. Doors open from 4pm to 8pm.

Members of the public are invited to attend where information will be available regarding the proposed wind farm.

Element Power Ireland is preparing the Environmental Impact Statement as well as the planning application for the proposal. Representatives from Element Power Ireland and Coillte will be present to provide information and answer any queries regarding the proposed wind farm.



elementpower

coillte



APPENDIX B7

Maighne Windfarm Information Leaflet



elementpower

Maighne Wind Farm



PUBLIC CONSULTATION

Using wind to generate electricity is saving Ireland €250million annually according to a new report from the Sustainable Energy Authority of Ireland. The saving accrues from not having to import fossil fuels and a reduction of two million tonnes in our CO2 emissions.

Another comprehensive report entitled 'The Value of Wind Energy to Ireland' finds that using wind energy to meet Ireland's 2020 renewables targets will help deliver €1.8 billion in new tax revenue to the Irish state at zero cost to the Irish consumer. This study takes into account all the costs of building new grid, balancing the variability of wind and the PSO levy for support schemes.

Maighne Wind Farm will also help Ireland meet its target of generating 40% of its electricity from renewable sources by 2020 thereby avoiding huge fines which would have to be paid by the Irish state.

Introduction

Element Power is a renewable energy company that develops, acquires, builds, owns and operates a portfolio of wind and solar power generation facilities worldwide. The company is active in 16 countries, with more than 9,280MW of projects in development and a number of operating assets already sold.

With offices in Tullamore and Cork, Element Power Ireland conducts the Group's Irish operations and is directly responsible for a growing development portfolio which it manages across nine counties including Waterford, Donegal, Tipperary and Cork.

The company is proposing the development of a wind farm in Maighne in North County Kildare and South County Meath.

The Project

Element Power Ireland is considering the development of a stand-alone wind energy project in Maighne which would supply renewable energy to the Irish grid.

The company is considering the development of up to 51 wind turbines spread over a large geographical area. If successful, North Kildare and South Meath could reap the benefits of wind energy with the employment, local rates and rental payments which would accrue to the area.

Element Power has commenced pre-application consultation with An Bord Pleanála under the Strategic Infrastructure planning process and will be guided by the authority.

All cabling would still run underground for this project which has an overall capacity to generate 125MW. Grid connection has also been secured into the existing electricity grid with no new overhead lines required.

The benefits locally could also be very significant with Element Power proposing a number of funding streams for the local area under a Community Benefit Programme to include a Near Neighbour fund, grants for third-level education, local enterprise and sports clubs as well as the upgrading of local roads.

The Element Power team looks forward to further engagement with the local community over the following months to discuss details of the proposed project.

Job creation

Element Power estimates that 225 jobs would be created during the construction phase of its project. Once developed, the wind turbines would sustain 30 jobs directly and a further 30 jobs indirectly.

The turbines would measure 169 metres to blade tip and the company intends to develop up to 51 machines in total. Element Power will fully comply with all planning guidelines.

Personnel with the following skills will be required during pre-construction and during construction:

- Road builders, quarry contractors, digger drivers and lorry drivers to develop kilometres of road networks allowing access to the turbines and crane pads
- Surveyors, formwork and shuttering crew, concrete providers as well as steel suppliers and fixers will be part of the process of putting the foundations in place
- Haulage companies, crane drivers, site foremen and ground/support staff will be required to put transport and erect the turbines in position
- Civil and structural engineers, electrical and power engineers, geotechnical experts, transport and traffic engineers, wind assessment specialist, wind analysts, monitoring and mast erection crews
- An electrical network has to be installed underground to take the power produced by the turbines to the electrical substations requiring electrical contractors as well as a substantial amount of excavation work and machinery
- Logistics, travel, lodging and material supply generate significant additional local revenue over the construction period meaning a spin-off for local shops, hotels, garages, construction companies, haulage firms, plant-hire operators and many other service providers.

Rate payments

Rate payments to Kildare and Meath County Councils would amount to between €800,000 and €1,000,000 per annum.

Rates are typically used to fund public lighting; street cleaning; roads and footpath upkeep; fire services; parks and open spaces; environmental protection; water supply and sewerage; libraries; heritage, tourism, public amenities and the arts as well as community support and initiatives.

This funding would be paid annually to the local authorities over the 30 year lifespan of the project.

Community Benefit Programme

Element Power has consulted with various community groups, voluntary associations and other stakeholders in North Kildare/South Meath and is continuing that process. The company is presently drawing up a Community Benefit Programme which will see more than €3.5million spent on local projects and initiatives over the lifetime of the project.

These include community projects, grants for third level education and local enterprise supports.

In addition to this, the company is also committed to a 'Near Neighbour Fund' which would see grants of up to €5,000 payable to all homes located within one kilometre of a turbine. This can be used directly to pay electricity bills or to have upgrading works carried out such as improved insulation, smart-metering or rainwater harvesting.

Element Power believes that the funds should benefit the specific regions and communities where wind farms are located while the views of local communities in North Kildare/South Meath would be pivotal in establishing a model which works to best effect in each area. To this end, the company is actively encouraging all potentially suitable community groups to contact the company through our local representatives.

Environment:

Unlike some other major infra-structural projects such as public road-building, developing a wind farm requires landowner consent. The landowner has the right to determine his/her own land use and where interested, landowners obtained professional advice after which they signed the option agreements. Studies are then carried out to assess the suitability of a site before deciding if it is suitable for a turbine.

A wide range of criteria is used to select potentially suitable locations including:

- Compliance with Department of the Environment, Community and Local Government wind farm planning guidelines
- Review County Development Plans to identify areas which are deemed suitable, unsuitable or undesignated
- Exclude areas which have been designated under the EU Habitats and Birds Directive (Natura 2000 sites)
- Exclude any existing or proposed designated Natural Heritage Areas

- Apply minimum setback distances from roads, waterways, transmission lines and dwellings
- Landowner engagement and consent
- Engage with adjacent neighbours
- Analyse road and cable access
- Analyse environmental constraints and ground conditions
- Public consultation to inform final site selection.

An Environmental Impact Assessment (EIA) is a statutory process involving an in-depth study of the possible impact that a proposed project may have on the environment, considering the environmental, social and economic aspects.

To enable the EIA to be undertaken for this project, an EIS must be prepared. This involves carrying out a full suite of studies in the project areas to include the following study areas:

- Human environment
- Landscape and visual impact (including shadow flicker studies)
- Ecology (ornithology, bat surveys, fish surveys, flora and fauna)
- Cultural and archaeological heritage
- Air and climate
- Soils, geology and hydrology (geology, hydrology, hydrogeology and peat hazard studies)
- Traffic
- Telecommunications and aviation
- Noise
- Civil engineering and roads
- Health and safety
- Material assets (existing manmade features in the receiving environment such as infrastructure).

Element Power

At Element Power, we view project landowners as our partners. Strong relationships are built on mutual respect and trust, and we work hard to develop lasting relationships with our landowner partners, from initial contact through operations.

We communicate regularly with our landowners to keep them informed and answer questions they may have. We also understand the importance of good stewardship of the land and strive to respect owners' wishes as we develop, build and operate successful projects.

Visit a wind farm for yourself

Onshore, Irish wind represents one of the most cost-effective low-carbon energy resources in Europe. In terms of electricity generation, wind energy is one of the safest technologies around and has zero fuel risk compared to other higher risk operations such as nuclear power plants.

The Irish Wind Energy Association's website, www.iwea.com gives a list of all the wind farms which are operating in Ireland today amounting to more than 1,300 turbines. Time spent researching the subject for yourself by watching and listening to a wind turbine up close will help you make up your own mind regarding wind energy.

Wind turbines located on lower lands have much less of a visual impact on the landscape than those located on higher ground. The constant, low-medium wind speed sites identified in North Kildare/South Meath are preferable to strong, gusty sites and are perfectly suited to renewable energy generation. On very flat land at Lisheen in Tipperary, there is a 30 turbine wind farm with machines of 140 metres in height where the local community is very positively disposed to wind energy having had reservations at the outset. This development began in 2007.

Element Power has produced numerous videos where neighbours of wind turbines are interviewed, these can be viewed on Maighne Wind Farm's YouTube channel. The company invites the public to take time to visit a wind farm and speak to the thousands of people who live beside the 1,400 wind turbines already operating in Ireland. This will enable people to see and learn for themselves how wind energy and local communities can co-exist harmoniously.

People have nothing to fear from wind energy. In addition to the 1,400 onshore turbines operational in Ireland, there are more than 225,000 machines located in 79 countries across the globe.

Did you know

- 1. Wind energy provides electricity without emitting greenhouse gases or air pollutants, and uses no fresh water to generate electricity – creating a healthier environment for people and wildlife. Onshore wind farms provide energy security, and contribute to the local and national economy. Using wind to generate electricity is saving Ireland €250million annually.*
- 2. Wind energy is one of the fastest growing major sources of new electricity on the planet. Every developed country in the world is pursuing a pro-wind energy policy. In 2012 alone, global wind energy capacity grew by 19 per cent. Here in Ireland, we have one of the best wind resources in Europe.*