

## Appendix 1-3 Scoping Report with Example Cover Letter





# SCARTMOUNTAIN WINDFARM, CO. WATERFORD ENVIRONMENTAL IMPACT ASSESSMENT

## SCOPING REPORT



# SCARTMOUNTAIN WIND FARM

## EIAR SCOPING REPORT

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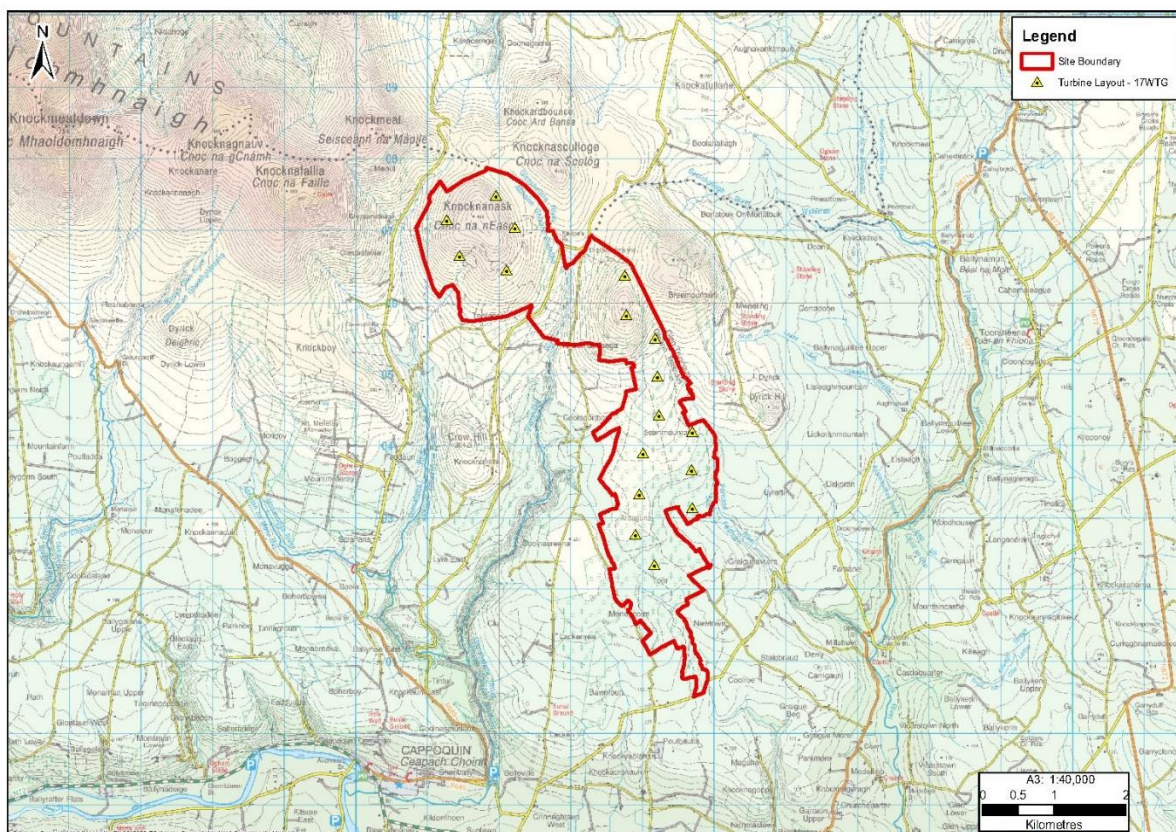
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## 1.0 INTRODUCTION

FuturEnergy Ireland intends to develop Scartmountain Wind Farm, near Cappoquin, County Waterford and have commenced the process of Environmental Impact Assessment. It is proposed that the Scartmountain Wind Farm will be built within a site that extends to approximately 970 hectares (ha) of which approximately 682 ha is owned by Coillte (mostly commercial forest) and the remaining area is privately owned. The site location and current site outline are shown in Figure 1.1. below.

It is currently proposed that up to 17 no wind turbines will be located across the proposed wind farm site.



*Figure 1.1 – Site Location Map showing indicative turbine locations*

Note: The wind farm site boundary and turbine locations shown in Figure 1.1 are indicative only and are subject to change.

## 1.1 THE NEED FOR ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

FuturEnergy Ireland and TOBIN Consulting Engineers (hereafter referred to as TOBIN) consider that the proposed development of the Scartmountain Wind Farm has the potential, prior to design mitigation and other mitigation, to have significant effects on the environment, due to the potential size, scale and location of the proposed development. The wind farm will exceed the thresholds for completion of an Environmental Impact Assessment (EIA), as detailed in the Planning and Development Regulations 2001 (as amended), Schedule 5, Part 2, Class 3(I), which states:

*“Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts”<sup>1</sup>.*

As such, it is not proposed to provide a report on the screening requirement for an EIA but to proceed on the basis of considering the potential effects of the wind farm through the process of Environmental Impact Assessment. FuturEnergy Ireland proposes to accompany the Planning Application for the wind farm with an Environmental Impact Assessment Report.

The European Commission's, “*Guidance on EIA Scoping*” (EU 2001) notes the following in Part A of the guidance,

*“EIA is a procedure required under the terms of European Union Directives 85/337/EEC and 97/11/EC on assessment of the effects of certain public and private projects on the environment. Article 2 of the Directive requires that*

*“Member States shall adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects.”*

Article 8 then requires that

*“The results of consultations and information gathered pursuant to (the EIA procedure) must be taken into consideration in the development consent procedure”.*

In terms of legislative context, it is considered that the Scartmountain Wind Farm is subject to the requirements set out in the provisions of Part X of the Planning and Development Act 2000, as amended.

## 1.2 PURPOSE OF EIA SCOPING

The purpose of the scoping for the Environmental Impact Assessment is to provide a framework for the approach to be taken for the individual specialists evaluations, to identify environmental topics for which potential significant environmental impacts may arise, to provide a framework for the consultation process to take place with planning and environmental stakeholders as part of the environmental assessment work. The scoping report also sets out a structure for the preparation of the Environmental Impact Assessment Report (EIAR) to be prepared and the information required to be included therein.

The European Commission's, “*Guidance on EIA Scoping*” (EU 2001) notes the following in Part B of the guidance, as being the benefits of scoping:

- *“It helps ensure that the environmental information used for decision making provides a comprehensive picture of the important effects of the project, including issues of*

<sup>1</sup> <http://www.irishstatutebook.ie/eli/2010/act/30/section/78/enacted/en/html>

*particular concern to affected groups and individuals;*

- *It helps focus resources on the important issues for decision-making and avoids wasted effort on issues of little relevance;*
- *It helps ensure that the environmental information provides a balanced view and is not burdened with irrelevant information;*
- *It stimulates early consultation between the developer and the competent authority, and with environmental authorities, other interested parties and the public, about the project and its environmental impacts;*
- *It helps effective planning, management and resourcing of the environmental studies;*
- *It should identify alternatives to the proposed project and mitigating measures which ought to be considered by the developer;*
- *It can identify other legislation or regulatory controls which may be relevant to the project and provide opportunities for the necessary assessment work for different control systems to be undertaken in parallel, thereby avoiding duplication of effort and costs for all concerned;*
- *It reduces the risk of delays caused by requests for further information after submission of the development consent application and the environmental information; and*
- *It reduces the risk of disagreement about impact assessment methods (baseline surveys, predictive methods and evaluation criteria) after submission of the environmental information.*

### 1.3 FUTUREENERGY IRELAND

FuturEnergy Ireland is a joint venture company owned by Coillte and ESB that was launched in November 2021. Combining the nation's strongest assets and expertise in renewable energy development, FuturEnergy Ireland's mission is to maximise the potential of our unique wind and land resources and accelerate Ireland's transformation to a low carbon energy economy.

The ambition is to develop more than 1GW of renewable energy capacity by 2030 and to make a significant contribution to Ireland's commitment to produce 80% of electricity from renewable sources by the end of the decade. FEI want to do this by driving the development of the highest quality, locally supported green energy projects in Ireland. FuturEnergy Ireland in conjunction with its co-development partners has recently received planning permission for Castlebanny Wind Farm (Co. Kilkenny) and Carrownagowan Wind Farm (Co. Clare) and also has a number of proposed wind energy projects currently in the planning system.

## 1.4 EIA TEAM

TOBIN have been engaged by FuturEnergy Ireland to coordinate the Environmental Impact Assessment and prepare the EIAR for the proposed development. The relevant specialists included in the Study Team, who are both experienced and competent in their areas of expertise, are noted here:

- TOBIN staff will provide expertise in relation to Project Direction, Project Management, EIAR Production and expertise in relation to the environmental evaluation of the following topics: Planning, Reasonable Alternatives, Biodiversity, Land, Soils & Geology including Slope Stability Assessment, Hydrology & Hydrogeology, Flood Risk Assessment, Traffic, Population, Human Health and Shadow Flicker and Material Assets Impact Assessment;
- Ground Investigations Ireland – Geotechnical Site Investigation;
- Macro Works – Landscape & Visual Impact Consultants & Production of Photomontages;
- Dr. Tom Gittings - Ornithology
- AWN Consultants – Noise & Vibration, Air Quality & Climate;
- TLI Group – Substation and Grid Connection Design;
- Western Forestry Co-Op - Forestry; and
- IAC Archaeology – Cultural Heritage.

## 1.5 SCOPING REPORT STRUCTURE

Individual specialists will undertake their evaluations of the environment including evaluation under following topics:

- Reasonable Alternatives
- Policy, Planning and Development Context
- Population and Human Health
- Biodiversity
- Land, Soils and Geology
- Hydrology and Hydrogeology
- Air Quality and Climate Assessment
- Shadow Flicker
- Material Assets: Aviation and Telecommunications
- Noise and Vibration
- Landscape and Visual Impact Assessment
- Forestry
- Cultural Heritage
- Traffic and Transport
- Interaction of the Foregoing

## 1.6 PROJECT DESCRIPTION

The project comprises of a development of a wind farm of up to 17 no. wind turbines and all associated infrastructure including turbine foundations, hardstanding areas, borrow pits, access



tracks, an on-site 110kV electrical substation and a grid connection comprising a tail-fed connection into the Dungarvan 110 kV Substation. The project will also comprise facilitating works on the public road network and at private properties to accommodate the delivery of turbine components.

## 1.7 SITE LOCATION

The site of the proposed Scartmountain Wind Farm is located just over 4 km northeast of Cappoquin in County Waterford. The site is also located adjacent to the County Tipperary border.

The site ranges in elevation from 125 to 486m AOD, with the Blackwater River (Cork/Waterford) Special Area of Conservation passing through the northern end of the site. The site forms a long single block with 3rd party lands located at the northernmost end.

The northern end of the site (private lands) includes Knocknanask Mountain, with elevations between 290 and 486m OD in sloped terrain. A valley generally divides Knocknanask from Scartmountain which reaches 428m OD. From the top of Scartmountain the site slopes gradually down to the south to the lowest point of approximately 125m OD.

The site has a number of small watercourses, with the most notable within or adjacent to the site including the Glenshelane and Farnane rivers. The majority of the site is covered in coniferous forestry plantations, with the northernmost areas (i.e. Knocknanask upper slopes) being covered in peatlands.

Access to the site is via a local road network from the N72 National Secondary Road, with the condition of these roads generally being good. Within the windfarm site, there are forest roads which provide good coverage around the site and are well maintained and in good condition. There are also several local roads both within or adjacent to the site.

## 1.8 THE PROPOSED DEVELOPMENT

### *1.8.1 INTERNAL ACCESS ROUTE AND TURBINE LOCATIONS*

The exact number, siting and scheme layout for the turbines will be decided as part of the design and EIA process.

In addition, the internal access route layout, access route types and construction methodologies will be designed and the location of the proposed entrance to the wind farm site will be confirmed. The initial layout design will be optimised by the design team between Q1 to Q3 2023 and assessment of potential access points through which turbine components and construction related deliveries may be made will commence at that stage.

### *1.8.2 WIND TURBINE SPECIFICATIONS*

The exact rating and design of the proposed turbine, subject to completion of the statutory processes, will be subject to a competitive tender and will be detailed by the turbine manufacturer on award of the contract. However, the proposed turbines will be the typical three bladed, horizontal axis type.

Details of the hub height, rotor diameter, tip height and the overall proposed capacity will be decided in the design and EIA process. The initial wind turbine specifications are based on a tip height of 185 m and a rotor diameter of 160 m. The potential installed capacities for the wind turbines and the wind farm as a whole will be proposed as part of the design process. Based on turbines available at the scale initially considered, the output from the wind farm would be approximately 112 MW.

### ***1.8.3 ELECTRICAL/MECHANICAL EQUIPMENT***

The main mechanical and electrical components associated with the development include the following:

- Turbine components (tower sections, nacelle, hub, rotor blades);
- 110 kV on-site substation;
- Electrical cable;
- SCADA cable; and
- Main and assist cranes.

### ***1.8.4 FORESTRY OPERATIONS MANAGEMENT***

FuturEnergy Ireland will ensure that the Coillte Forestry Operations division are involved in the layout design and phasing of the Scartmountain Wind Farm. In particular, the forestry consultant contributing to the EIAR will liaise with the Forestry Operations division of Coillte to confirm relevant details including details relating to forestry sections and sub-sections, tree species planted on site, tree planting dates, yield class, thinning and felling regimes and planned felling coupes and schedules.

### ***1.8.5 GRID CONNECTION***

FuturEnergy Ireland has identified a potential grid connection options for the Scartmountain Wind Farm which are to be explored as part of this project. This is a dedicated 110kV tail-fed connection to Dungarvan 110kV Substation (approx 15km)

### ***1.8.6 DECOMMISSIONING***

The proposed turbine will have a design lifetime of approximately 35 years without replacement of major components. In certain circumstances, FuturEnergy Ireland may wish to replace turbines prior to the end of the design lifetime. Such a decision would be made on the merits of economic and technical factors at the time of assessment and undertaken in consultation with the local authorities.

Turbine design renders the decommissioning process as a straightforward process. In the decommissioning phase, cranes disassemble each turbine section and remove from the site. The upper sections of the foundations projecting above ground will be removed, and the remainder of the foundations will be covered by soils typical of the surrounding environment and then re-seeded or left to re-vegetate according to ecological requirements. Underground cables will be cut back at the turbine termination points and will either be recycled or left buried in situ (de-energised). It is proposed that site routes would remain to allow access through the site either for further alternative development of the site, for ongoing forestry operations and/or for amenity purposes, as considered appropriate at the time.

Site materials will be recycled where practicable or disposed of in accordance with current waste legislation and best practice guidelines. Based on current commodity prices, principally steel and copper, material returns achieved through recycling may exceed current financial costs associated with site decommissioning.

Decommissioning activities are typically similar to construction activities, having similar type risks and sensitive receptors associated with them. The potential impacts of decommissioning activities will be assessed accordingly in the EIAR.

### ***1.8.7 REHABILITATION/CONCURRENT OR FUTURE USE OF THE SITE***

The land on which the majority of wind turbines will be located are Coillte owned commercial forestry enterprise and the phased use of these areas of the site for the purpose of forestry operations will continue during the operation of the wind farm. Any areas of high biodiversity identified during the initial constraints study and the EIA site surveys will remain intact.

## 2.0 ENVIRONMENTAL IMPACT ASSESSMENT

### 2.1 PROJECT SUMMARY

In the case of a wind farm development, the final project which will be subject to a planning application will have gone through a number of iterations during the EIA, including changes to design proposals, numbers of proposed turbines and turbine layouts.

It is proposed that the following EIA guidelines will be followed during the process:

- Guidelines on the Information to be contained in Environmental Impact Statements” (EPA, 2002);
- “Advice Notes on Current Practice in the Preparation of Environmental Impact Statements” (EPA, 2003);
- “Draft Guidelines on the Information to be contained in Environmental Impact Statements” (EPA, September 2015);
- “Draft Advice Notes on Preparing Environmental Impact Statements” (EPA, September 2015);
- Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, August 2017), and;
- Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022).

In addition to the Regulations and Guidelines above, the Scartmountain Wind Farm EIAR will be prepared with cognisance to the “Wind Energy Development Guidelines for Planning Authorities (2006)”, the proposed draft revisions to these guidelines (December 2013), the Preferred Draft Approach to these guidelines as announced by the Government in June 2017 and the “Draft Revised Wind Energy Development Guidelines (December 2019)”.

A Screening for Appropriate Assessment (AA) and a Natura Impact Statement (NIS) will be prepared for the proposed development. The purpose of the AA/NIS will be to inform An Bord Pleanála in its undertaking of an ‘Appropriate Assessment’ of the proposal, as required under Article 6(3) of the EU Habitats Directive (92/43/EC). This is an assessment of the potential for significant or adverse effects resulting from the project, both individually and in-combination with other activities, plans and projects, on European Site(s) as designated under the EU Habitats Directive and the conservation objectives for their qualifying species and habitats.

### 2.2 THE SCOPING PROCESS

This report will form the basis for the scoping process to be undertaken by FuturEnergy Ireland with the Planning Authority and the prescribed Statutory Bodies.

The scoping will allow all relevant planning and environmental stakeholders with the opportunity to provide information, data or additional guidance to facilitate the iteration of the design and EIA process, to determine what the main potential significant effects might be and what sub-topics the EIAR should focus upon.

### 2.3 BASELINE ASSESSMENT

Following an introduction to the EIAR, the following information will also be presented:



- Description of the Existing Environment – a detailed description of the existing environment to allow the baseline conditions at the development site to be understood and existing areas of sensitivity to be recorded (as per the EPA EIAR Guidelines).
- Description of the proposed development, including site layout and infrastructural details, construction procedures and the materials required, the operational and maintenance phases in addition to the decommissioning and rehabilitation phases.
- Consideration of Reasonable Alternatives – This provides a detailed assessment of alternatives considered in the selection of site location and site layout.

## 2.4 ASSESSMENT METHODOLOGY

In the case of each of the environmental topics, it is proposed that the following elements will be evaluated, and that the format of the EIAR will follow the standard methodology and be presented in accordance with the above-mentioned legislation and guidelines. Individual chapter topics are discussed further below in this section. The development is assessed and described within each environmental topic in terms of:

- **Introduction** - includes a background to the assessment and describes the study methodology employed in carrying out the assessment.
- **Existing Environment** – Describes and assesses the existing environment in the context of the relevant environmental categories. This section also takes account of any other proposed and existing developments in the vicinity.
- **Potential Effects** - Provides the description of the potential specific direct, indirect and cumulative effects, associated with the development. This is done with reference to the existing environment and characteristics of the proposed development, while also referring to the magnitude, duration, consequences and significance of the effect associated with the construction and operation and decommissioning of the development. This section also considers cumulative effects with other proposed or permitted developments.
- **Mitigation Measures** - A description of any remedial, or mitigation measures that are either practicable or reasonable having regard to the potential effects. It will also outline, where relevant, monitoring proposals to be carried out should consent be granted in order to demonstrate that the project in practice conforms to the predictions made.
- **Residual Impacts** - Provides the description and assessment of the predicted residual impact associated with the development on the surrounding environment.
- **Conclusion** – Provides a summary of the salient points of the assessment chapter.

## 2.5 ASSESSMENT OF EFFECTS

As stated in the ‘Guidelines on the Information to be contained in Environmental Impact Assessment Reports’ (EPA, 2022), an assessment of the likely significant effects of a proposed development is a statutory requirement of the EIAR process. The criteria for the presentation of the characteristics of potential significant effects will be described with reference to the magnitude, spatial extent, nature, complexity, probability, duration, frequency, reversibility, cumulative effect and transboundary nature (if applicable) of the effect.

The classification and description of effects in the Scartmountain Wind Farm EIAR will follow the terms provided in Table 3.4 of the EPA Guidelines (2022) referenced above (and duplicated in Table 2.1 below for information purposes).

According to the Guidelines, the relevant terms listed in the table below can be used to consistently describe specific effects, but all categories of terms do not need to be used for every effect.

The use of standardised terms for the classification of effects will ensure that the EIAR employs a systematic approach, which can be replicated across all disciplines covered in the EIAR. The consistent application of terminology throughout the EIAR will facilitate the assessment of the proposed development on the receiving environment.

*Table 2.1: Descriptions of Effects (as per Table 3.4 of the 2022 Guidelines on the information to be contained in Environmental Impact Assessment Reports).*

|                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Quality of Effects</b><br>It is important to inform the non-specialist reader whether an effect is positive, negative or neutral                                                                                                                                                   | <b>Positive Effects</b><br>A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).           |
|                                                                                                                                                                                                                                                                                       | <b>Neutral Effects</b><br>No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.                                                                                                 |
|                                                                                                                                                                                                                                                                                       | <b>Negative/adverse Effects</b><br>A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem, or damaging health or property or by causing nuisance). |
| <b>Describing the Significance of Effects</b><br>'Significance' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful (also see <i>Determining Significance</i> ). | <b>Imperceptible</b><br>An effect capable of measurement but without significant consequences.                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                       | <b>Not significant</b><br>An effect which causes noticeable changes in the character of the environment but without significant consequences.                                                                                                        |
|                                                                                                                                                                                                                                                                                       | <b>Slight Effects</b><br>An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.                                                                                                          |
|                                                                                                                                                                                                                                                                                       | <b>Moderate Effects</b><br>An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.                                                                                         |
|                                                                                                                                                                                                                                                                                       | <b>Significant Effects</b><br>An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.                                                                                                      |
|                                                                                                                                                                                                                                                                                       | <b>Very Significant</b><br>An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.                                                                                   |
|                                                                                                                                                                                                                                                                                       | <b>Profound Effects</b><br>An effect which obliterates sensitive characteristics.                                                                                                                                                                    |
| <b>Describing the Extent and Context of Effects</b><br>Context can affect the perception of significance. It is important to establish if the effect is unique or, perhaps, commonly or increasingly experienced.                                                                     | <b>Extent</b><br>Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.                                                                                                                       |
|                                                                                                                                                                                                                                                                                       | <b>Context</b><br>Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)                                                                      |
| <b>Describing the Probability of Effects</b><br>Descriptions of effects should establish how likely it is that the predicted effects will occur – so that the CA can take a view of the                                                                                               | <b>Likely Effects</b><br>The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.                                                                                    |

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| balance of risk over advantage when making a decision.                                                                                                                                                                                          | <b>Unlikely Effects</b><br>The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.                                                |
| <b>Describing the Duration and Frequency of Effects</b><br>'Duration' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful. | <b>Momentary Effects</b><br>Effects lasting from seconds to minutes                                                                                                                                                    |
|                                                                                                                                                                                                                                                 | <b>Brief Effects</b><br>Effects lasting less than a day                                                                                                                                                                |
|                                                                                                                                                                                                                                                 | <b>Temporary Effects</b><br>Effects lasting less than a year                                                                                                                                                           |
|                                                                                                                                                                                                                                                 | <b>Short-term Effects</b><br>Effects lasting one to seven years                                                                                                                                                        |
|                                                                                                                                                                                                                                                 | <b>Medium-term Effects</b><br>Effects lasting seven to fifteen years                                                                                                                                                   |
|                                                                                                                                                                                                                                                 | <b>Long-term Effects</b><br>Effects lasting fifteen to sixty years                                                                                                                                                     |
|                                                                                                                                                                                                                                                 | <b>Permanent Effects</b><br>Effects lasting over sixty years                                                                                                                                                           |
|                                                                                                                                                                                                                                                 | <b>Reversible Effects</b><br>Effects that can be undone, for example through remediation or restoration                                                                                                                |
|                                                                                                                                                                                                                                                 | <b>Frequency of Effects</b><br>Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)                                            |
| <b>Describing the Types of Effects</b>                                                                                                                                                                                                          | <b>Indirect Effects (a.k.a. Secondary or Off-site Effects)</b><br>Impacts on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway. |
|                                                                                                                                                                                                                                                 | <b>Cumulative Effects</b><br>The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects.                                                       |
|                                                                                                                                                                                                                                                 | <b>'Do-Nothing Effects'</b><br>The environment as it would be in the future should the subject project not be carried out.                                                                                             |
|                                                                                                                                                                                                                                                 | <b>'Worst case' Effects</b><br>The effects arising from a project in the case where mitigation measures substantially fail.                                                                                            |
|                                                                                                                                                                                                                                                 | <b>Indeterminable Effects</b><br>When the full consequences of a change in the environment cannot be described.                                                                                                        |
|                                                                                                                                                                                                                                                 | <b>Irreversible Effects</b><br>When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.                                                                          |
|                                                                                                                                                                                                                                                 | <b>Residual Effects</b><br>The degree of environmental change that will occur after the proposed mitigation measures have taken effect.                                                                                |
|                                                                                                                                                                                                                                                 | <b>Synergistic Effects</b><br>Where the resultant effect is of greater significance than the sum of its constituents, (e.g. combination of SOx and NOx to produce smog).                                               |

## 2.6 POTENTIAL MITIGATION

The strategies for identification of appropriate Mitigation Measures, as detailed in the EPA EIAR Guidelines (2022), will be followed in the preparation of the Scartmountain Wind Farm EIAR.



There are four established strategies for effects mitigation - avoidance, prevention, reduction and remedy/offsetting. As noted above, following the iteration of the design and EIA process, and following implementation of any design mitigation, the description of any remedial, or mitigation measures that have been incorporated into the design will be included to offset or minimise identified potential adverse impacts.

In accordance with the guidelines, these measures can mitigate impacts:

- *By Avoidance*  
When no impact is caused (often through consideration of alternatives).
- *By Prevention*  
When a potential impact is prevented by a measure to avoid the possibility of the impact occurring.
- *By Reduction*  
When an impact is lessened.
- *By Remedy/Offsetting*  
When an adverse impact is resolved by a remedial action or balanced by a positive impact.

## 2.7 NON-TECHNICAL SUMMARY AND CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

The non-technical summary (NTS) provides an overview and summary of the main EIAR using non-technical language. It is a standalone document which presents a clear and concise summary of the existing environment, characteristics of the proposed development, a clear outline of the potential significant impacts/effects which could result from the proposed development and mitigation measures adopted into the design of the development to minimise impacts on the surrounding environment.

A standalone Construction Environmental Management Plan (CEMP) will also be prepared which will set out the details of proposed construction compounds, construction methodologies, environmental mitigation measures and proposed reinstatement measures. The CEMP will incorporate the relevant construction phase mitigation measures which will have been integrated into the project, EIAR and AA.

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## 3.0 REASONABLE ALTERNATIVES

As set out in the EIA Directive, the EIAR is required to provide a description of the reasonable alternatives studied by FuturEnergy Ireland, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.

### 3.1 ALTERNATIVE SITES

In respect of consideration of alternative sites, the EIAR will set out the reasonable alternative sites available to FuturEnergy Ireland which will include consideration of suitable land banks held in ownership by Coillte and ESB. Details on the assessments carried out to identify the proposed site location as appropriate for this project will be provided.

### 3.2 ALTERNATIVE DESIGN

In the context of alternative design (incorporating scale and size), this section of the EIAR will set out the processes and assessments that were followed to arrive at the proposed turbine layout, turbine envelope and infrastructure layout. This section will be informed by comprehensive site surveys and ground investigations.

### 3.3 ALTERNATIVE TECHNOLOGY/ ALTERNATIVE PROCESSES

The proposed wind farm development at Scartmountain will support European and National policy in decarbonising electricity generation and contribute to Ireland's target to generate 80% (recently increased from 70%) of the country's electricity from renewable sources by 2030. There are a number of different renewable energy technologies available on the market, however not all will be viable at the proposed development location. This section will consider the various renewable energy alternatives (such as solar) and will assess the alternative wind turbine technologies available.

## 4.0 POLICY, PLANNING AND DEVELOPMENT CONTEXT

The proposed Scartmountain Wind Farm has potential to accommodate up to 17 no. wind turbines with a total electrical output of up to approximately 112 MW. Given the scale of the project, FuturEnergy Ireland will engage with An Bord Pleanála under the Strategic Infrastructure Development (SID) consultation process to determine the consenting route for the project.

Within the EIAR, the planning assessment will include a review of relevant European, national and local planning policy documentation, planning legislation, strategies and plans and set the local context of the project.

At an international and European level, this will include:

- The European Green Deal 2019;
- Europe 2020 Climate and Energy Framework;
- Europe 2030 Climate and Energy Framework;
- Energy Roadmap 2050; and
- Renewable Energy Directive 2009/28/EC & Recast Directive 2018/2001/EU.

At a national level this will include:

- National Energy and Climate Plan (NECP) 2021-2030;
- Climate Action Plan 2023;
- Ireland 2040 - Our Plan (National Planning Framework) [2018];
- National Development Plan 2018-2027;
- Government White Paper – Ireland’s Transition to a Low Carbon Energy Future 2015-2030;
- National Renewable Energy Action Plan 2010;
- National Wind Energy Guidance Documents including:
  - Wind Energy Development Guidelines 2006;
  - Draft Revised Wind Energy Development Guidelines – December 2019;
  - Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy, and Climate Change (2017);
  - Code of Practice for Wind Energy Development in Ireland on Guidelines for Community Engagement (DCCAE, 2016).

At a regional level this will include:

- Regional Spatial and Economic Strategy (RSES) 2019-2031 for the Southern Region

At a local level this will include:

- Waterford City and County Development Plan 2022 – 2028;
- South Tipperary County Development Plan 2009;
- Draft Tipperary County Development Plan 2022-2028.

## 5.0 POPULATION AND HUMAN HEALTH

### 5.1 INTRODUCTION

A review of the latest census data will be completed. The existing local population will be described and the projected change in the population, if any, will be assessed. This section will address, in particular, the effects of the Scartmountain Wind Farm on nuisance and residential amenities in the surrounding area. Any impacts on recreational activities as a result of the wind farm will be discussed in this chapter, including positive effects associated with any recreational amenity facilities that are developed on site.. In addition, the positive economic impacts will be examined, as employment will be created during the construction an operational phase of the wind farm. The wind farm will also generate a community benefit fund and create investment opportunities for the local community. This section will also consider public access, adjacent landowners / dwellings and local services such as existing electricity lines / masts on site. The Human Health assessment will be prepared in accordance with the relevant guidelines produced by the Environmental Protection Agency (EPA), as detailed in 5.4 below. Aspects examined in this section of the chapter will primarily relate to impacts from the wind farm on socio-economic activities, tourism and on local community health.

### 5.2 STUDY AREA

The study area for the “Population and Human Health” assessment will include County level data in relation to Electoral Divisions. In addition, the mapping in relation to residential receptors will include an area within 1km of the proposed wind farm site boundary.

### 5.3 SENSITIVE RECEPTORS

All properties in close proximity to the site boundary will be mapped as potential sensitive receptors. Properties will include residential dwellings, commercial properties, derelict buildings, agricultural buildings and pre-planning infrastructure (including houses submitted for planning permission). All properties will then be reviewed by ground-truthing and further desktop assessment (in the case of planning applications) to identify potential sensitive receptors in the vicinity of the development. In addition, as part of the initial turbine layout design process, a minimum 800m buffer will be extended from the location of any proposed turbines to sensitive receptors. This will inform the turbine layout and for the current proposed turbine tip height of 200m, exceeds the proposed minimum set-back requirement of four times tip height

### 5.4 DESKTOP AND FIELD SURVEYS

The following information sources and references are of relevance in relation to the desktop study for the Population and Human Health assessment;

- Information to be contained in Environmental Impact Assessment Reports (EPA, 2022)
- Revised Guidelines on the Information to be contained in Environmental Impact Statements, Draft September 2015 (EPA, 2015);
- IWEA Best Practice Guidelines for the Irish Wind Energy Industry 2012;
- IWEA Best Practise Principles in Community Engagement and Community Commitment 2013;
- OSI mapping and Aerial Photography to identify land use and possible amenity sites;
- Waterford County Development Plan 2011-2017;



- Waterford County Development Plan 2022-2028;
- South Tipperary County Development Plan 2009;
- Tipperary County Development Plan 2022-2028
- Central Statistics Office (CSO) information;
- Fáilte Ireland Information in relation to tourism amenity in conjunction with websites of relevant tourism sites and amenities for the area;
- Health Impact Assessment Resource and Tool Compilation (US EPA, 2016);
- Guidelines for Community Noise (WHO,1999);
- Health in Environmental Impact Assessment - A Primer for a Proportionate Approach (IEMA, 2017);
- Health Impact Assessment (Institute of Public Health Ireland, 2009);
- Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011);
- Air Quality Guidelines (WHO, 2005);
- British Standard (BS) 5228-1:2009+A1:2014 – Code of Practice for Noise and Vibration Control on Construction and Open Sites Part 1: Noise;
- Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) (EPA, 2016); and
- WHO Environmental Noise Guidelines for the European Region 2018.

The Population and Human Health impact assessment evaluates the receiving environment/land use and includes analysis of local population patterns. The assessment also includes a review of appropriate demographic documentation and incorporates Census Reports and Electoral Division Information, Land use, Population, Employment and Planning Permissions. In addition, the evaluation will provide details of FuturEnergy Ireland Community Benefit proposals and any consultation with regard to the same.

There are separate health profiles available for all local authority areas. The most recent profile published for Waterford will be used to establish a community health profile for the proposed wind farm. The assessment of human health for the proposed development, in terms of health protection, will follow the approach set out in the EPA 2022 Guidelines, Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018) and in the Commission’s SEA Implementation Guidance.

## 5.5 CUMULATIVE EFFECTS

The potential cumulative impact of the proposed wind farm with other relevant projects in the area on the local community and human health will also be addressed. This may include other wind farm developments, other renewable energy projects or any proposed project which could have the potential to have a cumulative impact.

## 6.0 BIODIVERSITY

### 6.1 INTRODUCTION

A separate Biodiversity (Flora & Fauna, excluding avifauna) chapter and Ornithology chapter will be produced as part of the EIAR in the interest of clarity.

Potential impacts on the biodiversity from the wind farm project will be addressed in line with the requirements of the Environmental Impact Assessment Directive 2011/92/EU as amended by Directive 2014/52/EU and the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296/2018), which implements EU Directive 2014/52/EU in planning law. Due regard will be had to published guidelines and best practice including:

- EPA (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports
- CIEEM (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal
- DEHLG (2006) Wind Energy Development Guidelines and Draft Revised Wind Energy Development Guidelines (December 2019)
- IWEA (2012) Best Practice Guidelines for the Irish Wind Energy Industry
- Accepted specific best guidance for assessing wind farm impacts on birds, bats and other sensitive ecological receptors

To date, a significant amount of desk study and field survey has been undertaken from October 2017 to gather information on the biodiversity of the study area and surrounds. This information will be used to inform the draft design of the wind farm.

### 6.2 STUDY AREA

The study area is the site of the proposed wind farm and the surrounding environs. Where required, the study area has been expanded to take into account sensitive receptors that may be within the zone of influence of the project. The zone of influence depends on the particular sensitivities of receptors and the ecological pathways along which impacts may be transmitted.

### 6.3 SENSITIVE RECEPTORS

Some sensitive ecological receptors have been identified by ecological surveys carried out to date, though there are more surveys yet to be carried out. These include designated sites and birds.

There is one NATURA 2000 site, i.e. Special Areas of Conservation (SAC) or Special Protection Area (SPA), within the site, the Blackwater River (Cork/Waterford) SAC, with no additional NATURA 2000 sites within or adjacent to the proposed wind farm site. The qualifying interests of the Blackwater River (Cork/Waterford) SAC, include.

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Perennial vegetation of stony banks [1220]
- Salicornia and other annuals colonising mud and sand [1310]
- Atlantic salt meadows (*Glaucopuccinellietalia maritima*) [1330]
- Mediterranean salt meadows (*Juncetalia maritimi*) [1410]



- Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]
- Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]
- Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]
- Austropotamobius pallipes (White-clawed Crayfish) [1092]
- Petromyzon marinus (Sea Lamprey) [1095]
- Lampetra planeri (Brook Lamprey) [1096]
- Lampetra fluviatilis (River Lamprey) [1099]
- Alosa fallax fallax (Twait Shad) [1103]
- Salmo salar (Salmon) [1106]
- Lutra lutra (Otter) [1355]
- Trichomanes speciosum (Killarney Fern) [1421]

The Glenshelane River is within the wind farm site and has hydrological connectivity to this NATURA 2000 site.

## 6.4 DESKTOP AND FIELD SURVEY

### 6.4.1 DESKTOP SURVEY

Detailed desktop surveys will be carried out. The primary data sources for the desktop surveys will be:

- National Biodiversity Data Centre records
- NPWS rare and protected species records
- National Hen Harrier survey data
- Irish Wetland Bird Survey site coverage information
- Bat Conservation Ireland database records
- Irish Cave Database
- Coillte sub-compartment (tree species and planting date) data
- Coillte Biodiversity Areas
- NPWS designated area boundary data
- NPWS site-specific conservation objectives shapefiles
- National Survey of Native Woodland sites
- National Fen Database sites
- EPA water quality data
- Aerial photography

An Ornithology desktop study will be undertaken to review all publications/guidance documents relative to the proposed development area. A review of survey work to date (full suite of ornithology survey reports and data), any information held by Coillte on the proposed development area, a review of Irish Wetland Bird Survey (I-WeBS) data and mapping, National Biodiversity Data Centre (NBDC) data, and any other ecological reports, will be undertaken. A review of Ordnance Survey maps and aerial photography will also be carried out, in order to determine the broad habitats that occur within the study area and thus typical bird communities.

### 6.4.2 FIELD SURVEYS

To date, the following field surveys have been carried out:



- Vantage Point Bird Surveys (since 2017 -2023 ongoing)
- Initial walkover of key habitats on site
- Bat Summer, Autumn & Winter Surveys using a combination of static surveys, transects and roost surveys as required.

Additional field work that has been programmed includes:

- Habitat Survey and mapping
- Target species surveys (as/if required)
- Aquatic Fisheries Surveys
- Invasive Species surveys
- Mammal surveys
- Bat Winter & Spring Surveys using a combination of static surveys, transects and roost surveys as required.
- Habitat survey of grid connection route
- Detailed vegetation surveys at proposed turbines and other specific key infrastructure locations
- Detailed protected fauna surveys at proposed turbines and other specific key infrastructure locations

During detailed vegetation surveys, habitat mapping will be updated as needed in line with the CIEEM (2019) Advice Note on the Lifespan of Ecological Reports and Surveys.

The need for additional survey work to address any information gaps will be reviewed on an ongoing basis.

## 6.5 CUMULATIVE EFFECTS

Cumulative impacts with other developments, including but not limited to other wind farms, will be assessed for all sensitive receptors. Interactions with other environmental disciplines, especially hydrology and climate, will also be assessed as set out in Section 17.

## 6.6 APPROPRIATE ASSESSMENT

A Natura Impact Statement (NIS) will be prepared and submitted to assess potential effects on the integrity of Natura 2000 sites within the zone of influence of the project. The NIS will be prepared with due regard to the European Commission's (2010) guidelines on *Wind Energy Developments and Natura 2000*. In line with best practice, the NIS will be a separate document to the EIAR.

## 7.0 LAND, SOILS AND GEOLOGY

### 7.1 INTRODUCTION

The principal objectives of the Land, Soils and Geology Chapter of the EIAR will be to identify and mitigate potential issues of the proposed development to ensure that the impact on the environment is minimised.

A desk study shall be undertaken to acquire all available topographic, geological, geotechnical and hydrogeological data (including geotechnical and site stability data) for the proposed development site and surrounding area. The desk study will include a geotechnical risk assessment to identify and mitigate potential issues that may arise during the construction stage (including geohazard, geomorphology features). The land cover on the site is currently mostly coniferous forest with some peatlands.

### 7.2 STUDY AREA

The EIAR study area of this chapter will primarily focus on the project site boundary. In addition, the assessment will consider the lands adjacent to the site boundary, environs downstream of the site area to an appropriate extent.

### 7.3 SENSITIVE RECEPTORS

There are geological sensitive receptors identified at the outset of the scoping process and prior to site investigation.

There are no mapped areas of Blanket peat on the site, however some wet soils is noted. Peat probing will be undertaken on the site.

The GSI's Landslide Susceptibility Mapping will be used to assist in the identification of areas which are subject to landslides and is measured from low to high. The southern portion of the site has been identified to be low in landslide susceptibility. The central and northern portion of the site has been identified as moderate to high. Sites designated for nature conservation within 15 km of the proposed development site, in addition to the above Blackwater River SAC.

### 7.4 DESKTOP AND FIELD SURVEY

A desk study shall be undertaken to acquire all available topographic, geological, geotechnical and hydrogeological data (including geotechnical and site stability data) for the proposed development site and surrounding area. The desk study will include a geotechnical risk assessment to identify and mitigate potential issues that may arise during the construction stage (including karst risk and geomorphology features).

Consultations will be undertaken and feedback requested from a number of statutory bodies, including:

- The Geological Survey of Ireland (GSI). Well data will be sourced and information on proposed Natural Heritage Areas (pNHAs), County Geological Sites (CGS) and any recorded Landslide Events (from the historical landslide database) in the region of the study area will be requested;
- Irish Peatland Conservation Council;



- Inland Fisheries Ireland (IFI);
- The Environmental Protection Agency (EPA);
- The Local Authority (Waterford) Environment Officer; and
- Scoping of geotechnical aspects of the EIA for peat sites will be agreed in conjunction with the multidisciplinary team, including but not limited to Geotechnical Engineer, Hydrogeologist, Hydrologist, Ecologist and the requirements of any and all of the design team as necessary e.g. Engineering designers deciding on access route types and construction methodologies.

The evaluation will include:

- Desk study of soils, subsoils, bedrock, geological, groundwater vulnerability, groundwater resources maps and aerial photography;
- Geomorphology assessment and mapping will be undertaken of geomorphological features;
- Aquifer assessment, in terms of the underlying aquifer and shallow groundwater system within the peat;
- Impact assessment on water schemes/ water supplies within 2km radius;
- Surface water and groundwater interaction (if existent);
- Desk top assessment for the identification of potential karst features or landforms;
- Site Investigation works will be specified in conjunction with the requirements of the designers and undertaken during the summer period of 2022. The site investigation will provide detail on soils, geology, peat types and depths and potential requirements for water management and drainage. Investigations may include:
  - Trial pitting;
  - Peat Probes;
  - In-situ Standard Penetration Test (SPT) testing and sampling; and
  - Ground Water Monitoring Installation.
- The nature and requirements of the potential peat management will be informed by the information from the site investigation, site surveys and visits and the evaluations undertaken by the multi-disciplinary team;
- Development of Geotechnical Risk register;
- Design of appropriate erosion and sediment control measures; development of erosion and sediment control procedures for implementation on site;
- Design and installation of monitoring wells, piezometers and surface hydrometric structures where required;
- Conduct preliminary geotechnical site investigations to inform the following:
  - Identify the depth of peat across the site & any required specialist peat parameters e.g. shear vane strength etc;

- Access routes construction methodology;
  - Cable route construction methodology;
  - Foundation construction methodology;
  - Borrow Pits / quarry potential;
  - Earthworks and Material Balance calculations (rock won on site in relation to rock fill required during construction of roads, hardstands, crane pads etc.);
  - Peat Management Works;
  - Groundwater management, as required;
  - Drainage Design;
  - Overburden (Soils/Peat) Storage and management;
  - Temporary works design; and
  - Site Reinstatement, to be aligned with the existing site rehabilitation plan (including erosion control).
- Geohazard Mapping & Risk Assessment, verifying landslide hazards and associated risk if identified; and
  - Interpretation and reporting of all geological, hydrogeological & geotechnical data collected from preliminary site investigations, with reference to data within the Geotechnical & Soil Stability Report.

## 7.5 CUMULATIVE EFFECTS

Based on the site investigation findings and the likely impacts and risks that may be anticipated, and the potential cumulative effects that may arise, guidance will be provided towards the mitigation of these impacts and minimisation of the associated risks during construction, operation and decommissioning of the proposed wind farm.

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## 8.0 HYDROLOGY AND HYDROGEOLOGY

### 8.1 INTRODUCTION

The principal objectives of the Hydrology and Hydrogeology Chapter of the EIAR will be to identify and mitigate potential issues of the proposed wind farm to ensure that the impact on surface water and groundwater is minimised.

### 8.2 STUDY AREA

The EIAR study area of the Hydrology and Hydrogeology assessment will extend outside the site boundary and include watercourses which will receive surface water from the proposed development site.

### 8.3 SENSITIVE RECEPTORS

The proposed development is located in a number of river catchments including the Glenafallia and Glenshelane Rivers to the south and the Furnane River to the east. These tributaries of the Blackwater River to the south forms part of the Blackwater River (Cork/Waterford) SAC, and provide potential connectivity to the proposed turbines.

### 8.4 DESKTOP AND FIELD SURVEYS

A desk study shall be undertaken to acquire all published hydrological data for the proposed development site and surrounding area, including flood data and surface water quality data.

Consultations will be carried out with a number of statutory bodies including:

- The Geological Survey of Ireland (GSI). Well data will be sourced and information on Natural Heritage Areas (NHAs), County Geological Sites (CGS) and any recorded Landslide Events (from the historical landslide database) in the region of the study area will be requested;
- The Local Authority Environment Officer;
- Inland Fisheries Ireland (IFI); and the
- Environmental Protection Agency (EPA).

### 8.5 HYDROLOGICAL ASSESSMENT

As part of the EIAR, TOBIN will establish baseline/existing hydrological conditions, identify potential impacts and proposed appropriate mitigation measures. TOBIN will also:

- Identify the existing surface water drainage characteristics of the site (including any natural or man-made drainage). A surface water feature survey/catchment assessment of the study area will be carried out to record all streams, rivers and lakes within the site boundary and surrounding area; and
- Establish baseline water quality across the site. Any historical water quality for this area will be reviewed and existing EPA water quality data will also be examined as part of the study including any available data relating to the river catchments in this area. Where required, surface water samples will be collected in order to provide a baseline set of water quality results for the area. Biological assessments of the rivers will also be carried out, if required.

TOBIN will also assess the potential for siltation as a result of the proposed wind farm, particularly during the construction phase and propose mitigation measures for associated pollution control. Any existing siltation management practices will be reviewed as part of this assessment.

## 8.6 WATER QUALITY ASSESSMENT

TOBIN will complete the following as part of the EIAR:

- Conduct water sampling (surface water and groundwater where possible) in accordance with industry standards;
- Interpret and identify surface and groundwater linkages through specific water quality parameters;
- Establish baseline/existing conditions, identify potential impacts and propose appropriate mitigation measures.

## 8.7 FLOOD RISK ASSESSMENT

The OPW's National Flood Risk Assessment (PFRA) mapping and Flood Maps were reviewed. A past flood event has been identified approximately 6 km southeast of the site at the N72. The past flood event has been recorded as recurring river flooding. There are no recorded flood events for the proposed development site, however rivers sourced from site has downstream potential flood areas, approximately 3 km from the site boundary as indicated on the Flood Maps. Where the risk of fluvial flooding (rivers and streams) is high, the risk of pluvial flooding from new hard-stand areas and infrastructure will be considered.

The Flood Risk Assessment for this project will include the following works:

- Review of available information, planning guidelines and historical flooding records;
- Topographical survey of site, including survey of smaller water courses;
- Assessment of hydrometric data (water levels and flows) for adjacent water bodies; and
- Assessment to take cognisance of climate change and the 1 in 100 year to 1 in 1000-year flood events.

The Flood Risk Assessment will be completed for the overall site and detailed within the EIAR. This assessment shall include undertaking the following tasks:

1. A visual Inspection of site and watercourses by hydrologist;
2. Site Topographical Survey;
3. Site survey of watercourses for hydraulic modelling;
4. A review of existing information and planning guidelines;
5. An assessment of historical flooding;
6. Estimation of the 100 and 1000 MRFS (Mid-Range Future Scenario) design flood events at the proposed Scartmountain Wind Farm site, as recommended by '*The Planning System and Flood Risk Management Guidelines*' (OPW, 2009). The hydrological assessment of the site may include:
  - i. Statistical estimation of design flood flow from available hydrometric data;
  - ii. Analysis of watercourses using the OPW's Flood Studies Update Portal; and
  - iii. Estimation of design flood flow from catchment descriptors and rainfall.

7. Hydraulic Modelling, using HEC-RAS or similar, of watercourses for the 100- and 1000-year design flood events. Where possible, the model shall be calibrated against historical and gauged flow data if available from the OPW and EPA hydrometric station network in the vicinity of the site;
8. Modelling and assessment of one flood risk solution proposed by the design team; and Floodplain Mapping for the 100 and 1000-year MRFS design flood events for the watercourses.

## 8.8 CUMULATIVE EFFECTS

Based on the evaluation findings and the likely impacts and risks that may be anticipated, and the potential cumulative effects that may arise, guidance will be provided towards the mitigation of these impacts and minimisation of the associated risks during construction of the proposed wind farm.

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## 9.0 AIR QUALITY AND CLIMATE

### 9.1 INTRODUCTION

The purpose of the Air Quality and Climate assessment will be to assess the potential impacts of the proposed wind farm on the Climate and Air environments. The development of renewable energy is identified as having the potential to be a clean form of energy production and as such to have a potential net beneficial effect on the Air Quality and Climate environments.

The climate impact assessment will consider the targets and objectives of the Climate Action Plan 2019 and how the project will contribute to achieving these targets. The assessment will also consider the direct and indirect effects of the project on climate change in the context of the current and proposed land use and consideration of national objectives on forestry development.

### 9.2 SENSITIVE RECEPTORS

Measurement results from the nearest air monitoring stations will be reviewed and evaluated in order to assess the current environment in relation to sensitive (residential) receptors.

### 9.3 DESKTOP AND FIELD SURVEY

The climate assessment within the EIAR will consist of a general overview of the climate for the south eastern region. Specific meteorological data for the site will be obtained from the nearest meteorological and synoptic stations (data from Met Éireann). This information will provide historical and existing baseline information for the regional climate in this area.

The positive effects that wind farm developments have on climate will also be discussed in this chapter, as well as a CO<sub>2</sub> balance calculation for the proposed construction, operation and decommissioning of the development as well as the production and transport of turbine components to the site.

This air quality assessment will include the findings of a desk-based air quality assessment using available data from the Environmental Protection Agency in consideration of the Air Quality Standards Regulations, 2002 (SI No. 271 of 2002) and the EU Air Framework Directive.

### 9.4 CUMULATIVE EFFECTS

The air quality and climate assessment will also consider the potential cumulative impacts of other developments in the area including the cumulative contribution to decarbonisation strategies and national greenhouse gas reduction targets.

## 10.0 SHADOW FLICKER

### 10.1 INTRODUCTION

The purpose of the Shadow Flicker assessment will be to assess the potential impacts of the proposed wind farm to sensitive receptors in the surrounding environment.

### 10.2 STUDY AREA

The study area will incorporate all sensitive receptors which have the potential to be impacted by shadow flicker from the proposed development.

The shadow flicker assessment will be carried out using windPRO modelling software and in accordance with the guidelines set out in the 2006 Wind Energy Guidelines as well as the Draft Revised Wind Energy Guidelines (December 2019). Consideration will also be given to relevant UK guidance including *"Update of UK Shadow Flicker Evidence Base"* carried out by Parsons Brinckerhoff in 2011.

### 10.3 SENSITIVE RECEPTORS

The envelope within which sensitive receptors will be evaluated will be determined by the size, scale and layout of the final wind farm. The current Wind Energy Guidelines (2006) outline that at distances greater than ten rotor diameters from a turbine, the potential for shadow flicker is very low, therefore the assessment will initially consider all sensitive receptors within 1.5 km of the proposed turbines. This will be revised as necessary to identify all potential receptors.

### 10.4 DESKTOP AND FIELD SURVEY

The extent and impact of Shadow Cast Analysis and Shadow Flicker depends on the relative positions and orientation of nearby houses and wind turbines, the presence of windows facing on to the proposed wind farm, the absence/presence of vegetation or other obstructions between the houses and the wind farm etc. This will be assessed as part of the EIA.

WindPRO Computer Modelling software will be employed, for this element of the assessment, through the use of the shadow module. This facilitates calculation and documentation of flickering effects in terms of hours per year during which a specific receptor or an area would be exposed to flickering from nearby turbine rotors.

For each receptor identified, maximum minutes of potential shadow flicker per day are calculated. The software can calculate the worst-case results (sun always shining in daytime, turbines always rotating and wind direction "worst case") or the "real expected values", based on assumptions on solar statistics and operating hours divided by wind direction. Typically, calculations are made in a worst-case scenario assuming that each sensitive receptor location has windows on all sides (i.e. glasshouse effect) but can also allow for user defined windows on properties.

Results will be presented in the form of calendars, cumulated hours with flicker or, for the area calculation, as maps of flicker hour isolines

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## 10.5 CUMULATIVE EFFECTS

Cumulative impacts of shadow flicker from existing operational or consented wind farms will also be included in the assessment, as will any wind farms which are in the planning system. The configuration of existing or consented wind farms can be added to the model and is particularly relevant to consider properties which may experience low levels of shadow flicker from one or more wind farms on their own but may be significantly impacted by adjacent wind farms.

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## 11.0 MATERIAL ASSETS: AVIATION AND TELECOMMUNICATIONS

### 11.1 INTRODUCTION

This chapter will detail the telecommunications baseline environment of the Scartmountain Wind Farm and identify the possibility of interference occurring to telecommunications and radio transmissions as a result of the wind turbine installations as well as potential impacts for commercial/private aviation authorities and associated communications.

### 11.2 STUDY AREA

The team will identify operators of telecommunications and aviation assets and determine, through consultation with them, whether there is potential interaction or interference with the assets within the study area as a result of the potential development.

### 11.3 SENSITIVE RECEPTORS

As part of the study of potential impact to telecommunications and aviation operators by the Scartmountain Wind Farm, identified stakeholders will be approached with project details and asked to revert with any potential impacts on their communications and flight management infrastructure. An initial list of telecommunications consultees has been prepared and will be added to as necessary throughout the project.

### 11.4 DESKTOP AND FIELD SURVEY

This will include:

- Identification of local communication links and sources of TV and radio reception;
- Identification of sensitive receptors for aviation, and consulting directly with those;
- Determining if the turbines are in the path between the receptors and transmitter;
- Liaison with service providers as required to assess impacts and address any queries or issues should they arise;
- Carrying out a baseline interference assessment; and
- Providing recommendations for pre and post construction monitoring.

### 11.5 CUMULATIVE EFFECTS

The potential for cumulative impacts is low because the interference that is generated from a wind turbine is directly related to the presence of that turbine in the path of television or communication link signal and less likely to be generated from multiple cumulative reflections. However, consideration will be given to other projects including wind farm developments and relevant infrastructure as part of this assessment.

## 12.0 NOISE AND VIBRATION

### 12.1 INTRODUCTION

The Noise and Vibration Chapter of the EIAR will assess the potential impacts of the proposed development on sensitive receptors in the surrounding environment during the construction, operational and decommissioning phases. The principal objectives of the Noise and Vibration assessment will be to specify appropriate limit values and mitigation measures to ensure that the impact on the noise sensitive receptors is minimised to an acceptable level.

### 12.2 STUDY AREA

The study area for the operational phase will cover at least the area predicted to exceed 30 dB LA90 when all existing and proposed turbines are at their maximum output noise level and will include all identified Noise Sensitive Locations (NSL's) that are within this area.

For the construction phase, all properties within 500m of the proposed construction activities or the nearest NSL if greater than 500m will be considered in the assessment.

Potential NSL's will include residential dwellings, commercial properties, derelict buildings, and pre-planning infrastructure (including relevant properties with planning permission). All properties will then be reviewed by ground-truthing and further desktop assessment (in the case of planning applications) to identify potential sensitive receptors in the vicinity of the development.

### 12.3 RECEIVING ENVIRONMENT

Initial iterations of the noise model will be developed and expected noise levels predicted at the nearest noise sensitive locations. This initial exercise will be used to inform the selection of appropriate baseline noise monitoring locations in the vicinity of the site.

#### 12.3.1 BACKGROUND NOISE SURVEY

A background noise monitoring survey will be completed at several NSL's in the vicinity of the proposed development site. All measurements will be conducted in accordance with the IoA document "*A Good Practice Guide to the Application of ETSU-R-97 for The Assessment and Rating of Wind Turbine Noise*" (GPG) and the associated supplementary guidance notes.

### 12.4 ASSESSMENT OF IMPACTS

The baseline work will characterise the noise climate existing in the area and facilitate the quantification of potential noise impact which may arise from the proposed development. The potential noise and vibration impacts will be considered for the following phases:

- Construction Phase;
- Operational Phase; and
- Decommissioning Phase.

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### **12.4.1 CONSTRUCTION PHASE**

Construction noise levels associated with various elements of the proposed development will be predicted at the facades of the closest noise-sensitive locations in the vicinity of the development by developing detailed construction calculations. All predictions will be conducted in accordance with the guidance contained in ISO 9613:1996: Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation. Source noise levels will be obtained from BS 5228 2009 +A1 2014 Code of practice for noise and vibration control on construction and open sites.

Vibration during construction will also be considered regarding the potential impact of residential amenity and structural damage to buildings.

### **12.4.2 OPERATIONAL PHASE**

We will predict noise levels at all the identified noise sensitive locations. All predictions will be free field and done in accordance with appropriate guidance using a proprietary noise modelling package. The use of a computer-based noise model lends itself to ongoing evaluation of proposal and provides output that is detailed and extensive. Noise contour maps will be generated for the site noise models illustrating noise levels in the vicinity of the proposed turbines.

We will use the results obtained from the prediction calculations to assess the likely noise impact of the operation of the proposed turbines. This will include appropriate downwind assessments at various noise sensitive locations. Where necessary and possible, we will consider noise control measures. Discussion of other issues will be undertaken where appropriate (e.g. tonality, low frequency noise/Infrasound, amplitude modulation etc.).

The potential noise impact associated with road traffic movements and other ancillary parts of the development including the substation and any other permanent source of noise will be assessed and included as part of the noise chapter.

## **12.5 CUMULATIVE EFFECTS**

A cumulative assessment considering existing and permitted projects (including large scale projects such as wind farms) will be undertaken in the EIAR. Nearby significant projects such as other wind farms which are in the planning system will also be considered.

## 13.0 LANDSCAPE AND VISUAL IMPACT ASSESSMENT

### 13.1 INTRODUCTION

The purpose of this section of the Scoping Report is to describe the scope of work and methods to be applied in the identification and assessment of landscape and visual impacts associated with the proposed Scartmountain Wind Farm.

### 13.2 STUDY AREA

The current 2006 Wind Energy Development Guidelines specify different radii for examining the Zone of Theoretical Visibility of proposed wind farm projects ('ZTV'). The extent of this study area is influenced by turbine height as follows:

- 15 km radius for blade tips up to 100 m;
- 20 km radius for blade tips greater than 100 m; and
- 25 km in order to incorporate features of national or international renown.

In the case of this project, the blade tips will be over 100 high and, thus, the minimum ZTV radius required is 20 km from the outermost turbines of the proposed development. It is not considered that there are any features of 'national or international renown' within 25km of the site and thus, the study area will remain at a consistent 20km radius from the proposed turbines.

Consideration will also be given to the guidelines set out in the Draft Revised Wind Energy Guidelines (December 2019) with regard to defining the study area.

### 13.3 SENSITIVE RECEPTORS

A Landscape and Seascape Assessment for County Waterford is included within the Waterford County Development Plan 2022-2028 and divides the county into seven landscape character types and 28 geographically specific landscape character units. The proposed wind farm development is almost entirely situated in the westernmost extents of the 'Uplands' landscape character type and the 'Knockmealdown Uplands' landscape character area. Immediately east of the site, the landscape transitions to the 'Foothills' landscape character type and the 'Tooaneena Foothills' landscape character area. In terms of landscape sensitivity, the proposed wind farm project is located in the 'most sensitive' classification which is associated with the 'Uplands' landscape type and is bound to the east and south by an 'increased sensitivity' designation.

In terms of wind energy designations, the proposed development was previously (in the Waterford County Development Plan 2011-2017) located in an area classified as 'open to consideration' and was bound to the west by a 'no-go' wind energy classifications which related to the more upland areas of the Knockmealdown Mountains. This has since been updated and an updated version of the Waterford Renewable Energy Strategy 2016-2030 is included within the Waterford County Development Plan 2022-2028, which excludes the previous wind energy designations for the county. It contains a new Renewable Energy Strategy, which has a wind energy strategy map where much of the site is shown to be located within an 'Exclusion' area in relation to wind energy development, whilst the southern tip of the site is located within a 'Preferred' area in relation to wind farm developments.

Whilst the proposed development is wholly situated in County Waterford, it is important to consider the landscape of County Tipperary, which is situated immediately north of the proposal site. The nearest landscape type in County Tipperary is that of 'A-Uplands', whilst the most relevant landscape character area is '23 – Knockmealdown Mountain Mosaic'. This landscape character area has a variety of sensitivity designations ranging from 'transitional sensitivity' to 'vulnerable'. The dominant sensitivity for this landscape character area is 'vulnerable', which has a 'very low' capacity and is described as "areas to be avoided on account of a very significant potential for change of appearance or character due to the presence of development or use". In terms of wind energy policy for this part of County Tipperary, the landscape bordering the proposed development in County Tipperary within the study area are identified as 'Areas Unsuitable for New Wind energy Development'.

Visual receptors will be selected from the following categories;

- Designated scenic routes / views (CDP)
  - Volume 3 – Section 5 of the Landscape and Seascape assessment within the development plan (Appendix 8) includes a list of protected view within County Waterford. A number of these occur within the central and wider study area, the nearest of which is located a short distance to the northwest of the site along an elevated local road in the townland of Meol.
  - Scenic designations within the South Tipperary County Development Plan 2009-2015 are listed in Appendix 4: Listed Views. A number of these are located throughout the study area in County Tipperary and will be included for assessment.
- Local Community views (roads and residences within approximately 5km)
- Centres of Population
  - Notable settlements include Cappoquin (c.3.5km southwest), Tooraneena (c. 5km east), Newcastle (c.6km north), Ballymacarbry (c.8km northeast), Lismore (c.9km southwest), Dungarvan (13km southeast), Clonmel (c.15km northwest), Newcastle and Ardfinnian
- Major Transport Routes
  - Notable transport routes: N72, N25, N24, R669, R668, R666, R671 and R672
- Amenity, Heritage and Tourism locations
  - East Munster Way
  - Tipperary Heritage Way
  - Knockmealdown Trails
  - Comeragh Scenic Mountain Drive
  - Glenshelane Trails
  - Sean Kelly Cycling Routes
  - Waterford Greenway
  - Blackwater Way – Avondhu Way
  - Nire Valley Trails
  - Lismore Castle
  - Tourin House
  - Dromana House and Gardens
  - Dungarvan Castle
  - Careys Castle

## 13.4 SURVEY METHODS

### 13.4.1 DESKTOP AND FIELD SURVEY

The desktop study will comprise of the following:

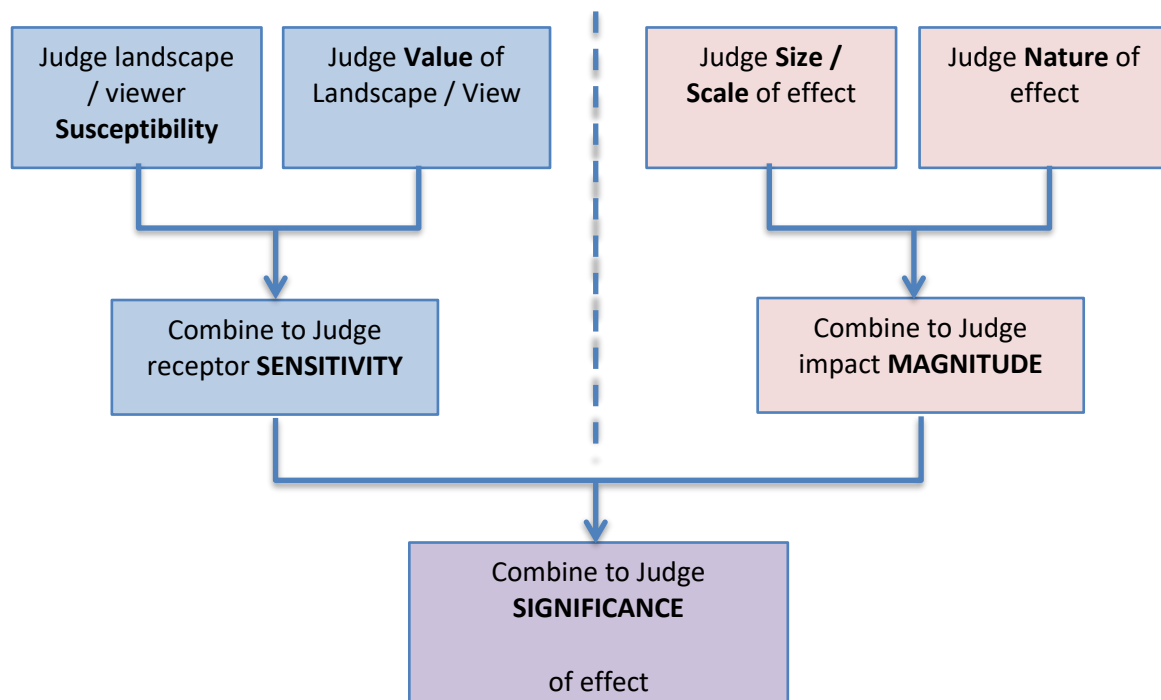
- Prepare and review of Zone of Theoretical Visibility (ZTV) maps, which indicates areas from which the development is potentially visible in relation to terrain within the Study Area;
- Review of relevant County Development Plans, particularly with regard to sensitive landscape and scenic view/route designations;
- Selection of potential Viewshed Reference Points (VRPs) from key visual receptors to be investigated during fieldwork for actual visibility and sensitivity; and
- Preparation of an initial VRP selection report and associated map for consultation purposes (Planning Authorities).

Fieldwork will consist of:

- Select a refined set of VRP's for assessment.
- Record a description of the landscape elements and characteristics within the Study Area generally and also within view from each VRP.
- Capture high quality base photography from which to prepare photomontages of the proposal.

## 13.5 IMPACT ASSESSMENT

The assessment of landscape effects involves establishing the landscape baseline. This includes consideration of the geographic location and landscape context of the proposed wind farm site as well as the essential landscape character and salient features of the wider Study Area and is discussed with respect to; landform and drainage and; vegetation and land use. The visual baseline is more population based, but still overlaps with elements of the landscape baseline. The visual baseline is discussed in relation to; centres of population and houses; transport routes and; public amenities and facilities. Once the baseline environment is established an assessment of the potential significant effects associated with the proposed development will be carried out. In accordance with the Guidelines for Landscape and Visual Impact Assessment (2013), the method for estimating the significance of landscape impacts and visual impacts is very similar. This is summarised in the diagram below.



*Figure 13.1 - Method for assessing Landscape Impact significance and Visual Impact significance (based on GLVIA – 2013)*

### 13.5.1 LVIA ASSESSMENT TOOLS / TECHNIQUES

The following assessment tools and techniques will be considered for this project and applied as appropriate and beneficial to the assessment.

#### Photomontages:

Photomontages are photo-realistic depictions of the proposed development superimposed on baseline photography at selected receptor/viewpoint locations. The photomontages will be fully compliant with the most recent SNH guidelines (2014).

In the case of Scartmountain Wind Farm, it is anticipated that approximately 30 no. viewpoints will be required overall. It is imperative that base photography is captured in the clearest of viewing conditions, especially where existing turbines are contained within the view.

#### Route Screening Analysis (RSA):

The project team landscape specialist has developed a 360° vehicle mounted photo-capture unit to gather imagery every second (approximately 15m intervals). The images are then synchronised with a 3D model of the proposed development for rapid analysis of screening levels. When used in vegetated lowland landscapes, RSA has shown actual visibility to be much less than indicated by traditional Zone of Theoretical Visibility (ZTV) maps.

#### Theoretical Visual Intensity (TVI) Mapping:

Because traditional ZTV maps are of limited value in illustrating likely comparative visual prominence over distance, a more advanced form of visibility mapping will also be utilised, which takes into account both the scale in relation to distance of the proposed development and the degree to which it is visible within the 'bare-ground' terrain context. TVI mapping will highlight,

at the baseline stage, those areas that have the most potential to be significantly affected by views of the proposed development as well as areas where visual impacts are not likely to be significant.

#### 360° On-line Photomontage Viewer:

This is principally a design team collaboration tool but can be used for consultation purposes also. All viewpoint photography will be captured in 360° and early stage design iterations will be presented on an on-line photomontage viewer, which is calibrated to a 24-inch screen allowing the viewer to pan around the image as if turning their head. This resource allows the project team to efficiently compare design options and discuss potential impacts / design solutions.

## 13.6 CUMULATIVE EFFECTS

There are three existing wind farms situated within the wider study area and are outlined below in addition to their distance from the proposed site.

- Woodhouse Wind Farm (located c. 8km south of site)
- Barranafaddock Wind Farm (located c.16km west of the site)
- Ballcurreren Wind Farm (located c. 19km south of the site)

Whilst not yet at the planning stage, two wind farms proposals are also located within the study area, one of which (Dyrick Hill Wind Farm) is located immediately to the east of the site, whilst Coumnagappul Wind Farm is located 9km northeast of the site.

Cumulative impacts will be assessed in accordance with the SNH guidance note for 'Assessing the cumulative impact of onshore wind energy developments' (2012) taking account of 'Combined Views' 'Succession Views' and 'Sequential Views'. The landscape specialist will use their own on-line viewer (see detailed description above) to compare 360° photography against corresponding 360° cumulative Wireframe images to aid the cumulative impact assessment.

## 14.0 CULTURAL HERITAGE

### 14.1 INTRODUCTION

The principle aim of the Cultural Heritage Assessment is to anticipate and avoid impacts on the cultural heritage resource. Detailed constraints mapping in GIS will form the basis of this work, followed by further analysis of sites that will potentially be impacted upon, and field surveys to ground truth the results of the desk-based assessment and ascertain the significance of any potential impacts.

### 14.2 STUDY AREA

IAC Archaeology will map the Study Area in GIS and identify the cultural heritage resource within the broader area. The various data sources (including but not limited to OSI mapping and historic mapping, aerial photography, archaeological sites, architectural sites and other cultural heritage sites) will be presented as GIS datasets which will be combined with desktop data.

### 14.3 SENSITIVE RECEPTORS

The archaeological and architectural sites noted above will be reviewed in GIS to ascertain whether there is a potential for direct or indirect impacts or for impacts on the setting of cultural heritage sites. Where sites are in visually prominent locations and may be susceptible to impacts on their setting from visually prominent development in the wider area these will also be mapped. Sensitive receptors within and in the vicinity of the study area of the proposed Scartmountain Wind Farm will be identified as part of the scoping, constraints and EIAR process.

### 14.4 DESKTOP AND FIELD SURVEYS

All cultural heritage work will be cognisant of best current practice. IAC Archaeology will undertake preliminary windscreen surveys to ensure that any potentially significant cultural heritage constraints are noted as early as possible. Along with analysis of the density of cultural heritage sites within and in the vicinity of the proposed development, this will form the basis of the initial scoping report. IAC Archaeology will produce written studies identifying cultural heritage constraints (including sites where there is potential for impact on setting). This initial scoping document will comprise a high-level report outlining the relevant legislation and what the designated and undesignated cultural heritage sites that could be impacted on by the proposed development are. It will include a review of County Development Plans, Heritage Plans, Landscape Conservation Areas, other heritage studies such as industrial heritage surveys and relevant Policies and Objectives. A report will be produced that provides written description of data including how and when it was obtained and outlining the various degrees of legislative protection and importance.

Cultural heritage sites located in the immediate vicinity of the proposed development which could be subject to direct physical impacts during the construction phase will be highlighted for review of design to avoid impacts where possible. We will also undertake a review of the data to highlight sites with particular sensitivity to impacts on setting that are located within the surrounding landscape. IAC Archaeology will assist the lead consultant in the layout optimisation process as necessary, providing specialist feedback in relation to cultural heritage issues. A review of cartographic sources and aerial photography will be carried out at this stage,

and any anomalies observed will be mapped and recorded. Any issues arising will be flagged at this stage for further investigation.

A second phase of field inspection will be carried out to investigate any identified anomalies and ground truth the desktop analysis. This will, where possible, involve viewing sites from nearby roads or field visits. A survey of the proposed cable and haul routes will also be carried out. The survey team allocated to this task will note, record and locate vernacular features which could be impacted upon by the proposed works. This will include Protected Structures, bridges, street furniture etc. and other cultural heritage features as well as other cultural heritage features in the vicinity of these proposed routes.

Upon completion of a final design of access routes, haul roads, substations, connections and location of turbines etc., IAC Archaeology will undertake the preparation of the Cultural Heritage Chapter of the EIAR. This work will be completed to the highest standards of professional best practice and cognisant of EPA guidelines, relevant County Development Plans, Best Practice Guidelines and legislative protection afforded to the archaeological, architectural and cultural heritage resource. IAC Archaeology will ensure that the scope and extent of the cultural heritage chapter are appropriate to form the basis of the EIAR to be submitted with the application. Following completion of the preliminary baseline study and preliminary assessment of impacts, and, subsequent to freezing of site layout, a final programme of fieldwork will be undertaken to ground truth the results of the desk-based work and ascertain the likely potential significance of the impacts that the proposed development may have on the cultural heritage resource. Sites that may experience impacts from the proposed development will be visited and the potential impacts qualified and quantified in line with EPA guidelines.

IAC Archaeology will work closely with the landscape consultant in highlighting the most important archaeological and architectural sites and coordinate with them in the production of photomontages from the most sensitive archaeological and architectural receptors.

A detailed assessment will be carried out on any potential impacts that the proposed development may have on the cultural heritage resource, based on analysis of the data sources listed above and elsewhere herein. Any potential impacts identified will be discussed with the project team and amendments made to the proposed design where possible to eliminate or minimise the potential impact.

## 14.5 CUMULATIVE EFFECTS

Based on the findings and the likely impacts and risks that may be anticipated, and the potential cumulative effects that may arise, guidance will be provided towards the mitigation of these impacts and minimisation of the associated risks during construction.

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## 15.0 TRAFFIC AND TRANSPORT

### 15.1 INTRODUCTION

The purpose of the traffic impact assessment will be to assess the potential impacts of the proposed wind farm on the surrounding roads and potential sensitive receptors. The potential requirement for construction stage traffic management will be assessed as part of the EIAR process.

### 15.2 SENSITIVE RECEPTORS

As detailed in Section 5, sensitive receptors in the vicinity of the proposed wind farm will be identified as part of the scoping and EIAR process.

### 15.3 DESKTOP AND FIELD SURVEY

The primary traffic related impact caused by a wind farm generally occurs during the construction stage of the project. As such, the traffic assessment within the EIAR will focus on the impacts that will be associated with the construction of the wind farm. From the site investigation works, the quality of the materials that will be arising from excavations will be considered and peat/overburden will be side cast or deposited elsewhere on the site for beneficial reuse.

The extent of rock, sand and gravel on-site will be identified and it is expected that if present that this will be exploited in order to minimise traffic movements to and from the site. The wind farm will also be designed such that all surplus excavated materials will be used on-site for landscaping purposes thereby minimising the volume of materials leaving the site, reducing the cost of disposal and minimising the construction traffic.

Using aerial photography and mapping, haul routes will be identified for the construction process. These haul routes will be originally assessed by undertaking a site visit and driving the proposed haul routes. A qualitative assessment of the proposed haul routes will be carried out identifying pinch points, tight bends, steep elevations, poor pavement conditions, road structures, watercourse crossings etc. and the haul routes will be revised where necessary. Swept path analysis will be undertaken at identified constraints by the traffic specialists to inform the assessment. Early engagement with third party landowners will be undertaken where details of external road improvements are proposed and these will be included in the EIA as appropriate.

The traffic team will also look at traffic access to the site from the public road network, including sightlines and advise on any limitations. They will consider if the existing site access is appropriate for construction and work vehicles to enter and exit the site in a safe manner. Longitudinal profiles and sections shall be undertaken in accordance with the TII Publication Rural Road Link Design (DN-GEO-03031 June 2017) to develop suitable road levels.

Using information on the project construction methodology, an estimate of the number of vehicles (both light and heavy good vehicles) that would be generated by the construction phase, will be produced. These estimates can be used to assess the impact on the road network in numerical terms and will also feed into other EIAR chapters such as noise and air quality. The Road / Traffic Section of Waterford County Council will be consulted, and the relevant

information will be taken into consideration in accordance with the Traffic and Transportation Assessment Guidelines, May 2014 (PE-PAV-02045).

The Traffic Chapter of the EIAR will be completed, taking into consideration the information generated during the processes described above, identifying impacts and proposing mitigation measures where appropriate. A Pavement Assessment will include a Video Survey of existing route and development of development specific million standard axle design data to inform the Pavement Assessment output. A separate report, a Traffic and Transportation Assessment Report, will be appended to the EIAR.

Typically, wind farms are located in rural areas and this poses challenges for the delivery of abnormal load turbine components to site. The proposed Wind Farm is no different in this respect and so one of the key roads and traffic issues will be identifying a suitable haul route for the successful and safe delivery of turbine components to site. The close proximity of the N72 national road, with links to ports in Kilkenny, Dublin and Cork is a benefit to the site location.

A Construction Traffic Management Plan will be prepared for the Haul Route for the construction traffic and the abnormal load haul route, outlining

- Objectives
- Existing site conditions
- Proposed Construction (Traffic volumes, staffing levels, construction equipment and Abnormal Loads)
- Proposed Traffic Management Plan (Accesses, Signage, Vehicle Routing, Material Deliveries, Construction Speed Limits, Road Cleaning and CTMP Enforcement); an
- Proposed Emergency Procedures for the Construction Stage

The requirement for the preparation of a Stage 1 Road Safety Audit (RSA) will be considered and discussed with the traffic department in Waterford County Council. Where required, this will be completed by a suitably qualified traffic expert and included in the EIAR.

## 15.4 CUMULATIVE EFFECTS

Based on the site investigation findings and the likely impacts and risks that may be anticipated, and the potential cumulative effects that may arise, guidance will be provided towards the mitigation of these impacts and minimisation of the associated risks during construction, operation and decommissioning.

## 16.0 INTERACTION OF THE FOREGOING

A section of the EIAR entitled “Interaction of the Foregoing” will summarise the primary interrelationships of aspects of the various environmental topics with the potential for significant effects as a result of the proposed development.

## 17.0 SCHEDULE OF MITIGATION MEASURES

A summary chapter collating all of the mitigation measures relevant to the proposed development will be included in a standalone section of the EIAR i.e. a Schedule of Mitigation Measures.

## 18.0 CONSULTATION

### 18.1 SCOPING CONSULTATION

Following the preliminary design of the Scartmountain Wind Farm layout and turbine locations, it is proposed that the project team will commence consultation initially with the bodies listed below, in order to allow sufficient time for receipt of meaningful feedback.

A request to enter into pre-application consultation with An Bord Pleanála is to be submitted in January 2023 and a date for an initial consultation meeting is awaited.

| Consultee List                                                   |
|------------------------------------------------------------------|
| <b>Prescribed Bodies</b>                                         |
| Waterford County Council -                                       |
| Department of Environment, Climate and Communications            |
| Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media |
| Department of Housing, Local Government and Heritage             |
| Department of Agriculture, Food and Marine                       |
| Transport Infrastructure Ireland                                 |
| An Taisce - The National Trust for Ireland                       |
| Fáilte Ireland                                                   |
| The Heritage Council                                             |
| Southern Regional Assembly                                       |
| Inland Fisheries Ireland                                         |
| Waterways Ireland                                                |

|                                         |
|-----------------------------------------|
| Irish Aviation Authority                |
| Coras Iompair Eireann (CIE)             |
| Department of Transport                 |
| Health and Safety Executive             |
| Commission for Regulation of Utilities  |
| Irish Water                             |
| Department of Defence                   |
| <b>Other Consultees</b>                 |
| Tipperary County Council                |
| Geological Survey of Ireland            |
| BirdWatch Ireland                       |
| Teagasc                                 |
| Irish Raptor Study Group                |
| The Arts Council                        |
| Environmental Protection Agency         |
| Health & Safety Authority               |
| Sustainable Energy Authority of Ireland |
| Irish Wildlife Trust                    |
| Bat Conservation Ireland                |
| Office of Public Works                  |
| Forest Service                          |
| Mountaineering Ireland                  |
| Irish Trails/Sport Ireland              |
| Met Eireann                             |

Additional consultees will be contacted throughout the preparation of the EIAR and through discussions with the planning authority and local authority.

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## 18.2 PUBLIC CONSULTATION

The Community Engagement Strategy for the Project is based around engaging with the local community in an open, honest and transparent manner with the aim to not only provide clear and understandable information but also to gain feedback to understand the views of the local community. This feedback and information will be used to inform the design process, thereby allowing the local community an opportunity to have an influence on the project design.

Two Community Liaison Officer (CLO) has been appointed as the point of the contact for the Project and have been engaging with the local community. The purpose of the CLOs is to introduce the project to the local community, engage and establish a line of dialogue with the local community and facilitate one-to-one consultation meetings, or group meetings as appropriate. The CLOs will also disseminate information on the project to the local community as it becomes available and as the project progresses.

Contact details for the CLOs will be provided, for local residents to get in touch with any queries or comments regarding the design and assessment of the proposed project as it progresses.

TOBIN will be providing assistance to the FuturEnergy Ireland Engagement Team where needed, particularly in areas where technical specialist knowledge is required.



[www.tobin.ie](http://www.tobin.ie)



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**Our Ref:**        **11303s4**

26<sup>th</sup> January 2023

Development Applications Unit  
Department of Housing, Local Government and Heritage  
Custom House  
Dublin 1  
D01 W6X0

RE: Proposed Development of Scartmountain Wind Farm, Co. Waterford

Dear Sir/Madam,

FuturEnergy Ireland intends to develop Scartmountain Wind Farm, north of Cappoquin, County Waterford and have commenced the process of Environmental Impact Assessment. It is proposed that the Scartmountain Wind Farm will be built within a site that extends to approximately 970 hectares (ha), most of which is commercial forest owned by Coillte and the remaining area is third party property. It is currently proposed that up to 17 no. wind turbines will be located across the proposed wind farm site.

FuturEnergy Ireland has engaged a team of technical experts who are in the process of scoping environmental assessments for the proposed development. Please see the enclosed Scoping Document for further information.

We therefore invite you to submit any relevant information that you may hold and/or highlight any issues that you feel should be directed to the project team. Views/comments on the proposed development can be submitted by email, letter or telephone to the contact below no later than the 9th March 2023.

Yours sincerely



John Staunton  
Senior Project Manager and Environmental Scientist  
**TOBIN Consulting Engineers (on behalf of FuturEnergy Ireland)**  
Telephone: 01-8030401; Email: [redacted](#)