# Appendix 2.1
# Scoping Report

# Keerglen Wind Farm

# Keerglen Wind Farm, Co. Mayo

# Scoping Report

## ABO Wind Ireland LTD

## February 2022

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# 1. Introduction

ABO Wind Ireland Ltd. (ABO Wind) intend to develop Keerglen Wind Farm, County Mayo, and have commenced the process of Environmental Impact Assessment (EIA) to support a forthcoming planning application that will be submitted to Mayo County Council.

The proposed wind farm site ("the Site") currently consists of approximately 115.7 hectares of moorland and forestry, opening to rural / pastoral landscape to the east. The site is located circa 5.5 km to the south of Ballycastle and 15 km north of Crossmolina, County Mayo.

ABO Wind are managing and coordinating the preparation of the planning application and the Environmental Impact Assessment Report (EIAR). To assist with the preparation of the EIAR, ABO Wind have engaged a team of multidisciplinary expert consultants to carryout baseline survey work, conduct impact assessments and provide advice throughout the wind farm design process.

The wind farm layout has already been subject to an iterative design process and at this stage it is envisaged that the Site has the potential to accommodate a wind energy development in the region of 50MW, with the developable area of the Site currently capable of accommodating circa 10 wind turbines.

This document provides preliminary details on the proposed Keerglen Wind Farm and has been prepared for consultation purposes as part of the EIA process.

## The Applicant

ABO Wind Ireland Ltd. (ABO Wind) was established in Ireland in 2008 and is a subsidiary of ABO Wind AG, one of Europe's most successful developers of wind energy projects. With headquarters in Wiesbaden, Germany it plans, builds, maintains and operates wind farms along with other renewable energy technologies. Since 1996, the company has developed and sold wind energy, solar and biogas projects with an output of circa 3,500 megawatts.

In Ireland, ABO Wind Ireland Ltd has successfully developed and constructed five wind farms in Ireland with a capacity of circa 95 Megawatts, including Glenough Wind Farm in Co. Tipperary, Gortahile Wind Farm in Co. Laois and Gibbet Hill Wind Farm in Co. Wexford. In 2011, Glenough Wind Farm, one of the largest wind farms (35MW) ever constructed by ABO Wind Ireland Ltd was connected to the grid. Gortahile Wind Farm (20MW) has been in operation since August 2010. The project at Gibbet Hill with a total capacity of 15MW was connected to the grid in 2013. The most recent project connected to the grid was the first Phase of Clogheravaddy Wind Farm, a 20MW project in County Donegal. The second phase of this project is expected to be connected to the grid by the end of Q1 2022.

## Environmental Impact Assessment Requirement

EIA requirements derive from the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU. The amended Directive was transposed into Irish law through the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 which came into effect on 1 September 2018. The regulations set out the information to be contained in the EIA and the thresholds for developments for which such assessments are required. The primary objective of the EIA Directive is to ensure that projects, which are likely to have significant effects on the environment, are subject to an assessment of their likely impacts.

Part X of the Planning and Development Act, 2000, as amended, states that where a planning application is made in respect of a development or class of development referred to in the act under Section 176 that the development shall, in addition to meeting the requirements of the planning regulations be accompanied by an EIAR.

Schedule 5 of the Planning and Development Regulations 2001, as amended, sets out the developments and thresholds that are specified for the purposes of Part 10. In reference to energy industry, developments which comprises 'the 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' are specifically stated in Schedule 5, Part 2 (3) (i).

The proposed development will consist of circa 10 turbines. Accordingly, the proposed development will engage the requirement for a full EIA to be carried out by the competent authority.

In respect of the information contained within the EIAR, it will be prepared in accordance with Schedule 6 of the Planning and Development Regulations 2001, as amended, Directive 2014/52/EU, amending Directive 2011/92/EU, relating to the information to be contained in an EIAR, and the Environmental Protection Agency (EPA) 'Draft Guidelines on the Information to be contained in Environmental Impact Assessment Reports' (2017).

## Purpose of EIA Scoping

The purpose of EIA scoping is to identify environmental topics for which potential significant environmental impacts may arise as a result of the proposed development, either on its own or cumulatively with other projects. It seeks to provide a framework for the expert evaluations of the identified environmental topics while outlining the structure to be followed during the preparation of the EIAR and the appropriate level of information to be provided in the EIAR.

EIA scoping further seeks to facilitate a process of consultation with Statutory consultees, inviting them to identify any potential requirements, impacts or considerations that should be included during the preparation of the EIAR.

Accordingly, this Scoping Report is provided to all relevant Statutory consultees for their consideration and comment with regard to the proposed development of Keerglen Wind Farm.

# 2. The Proposed Development

## Site Context

The Site is situated in a small upland valley of moorland and forestry, opening to rural / pastoral landscape to the east. The site is located circa 5.5 km to the south of Ballycastle and 15 km north of Crossmolina, County Mayo. In terms of land use, the Site generally comprises of moorland which is characterised by low-growing vegetation on acidic soils. There is a bog located to the south of the site. Turf is harvested in this area of the site.

Keerglen River runs c.100m north of the site boundary. It also runs 100m west of the site boundary. The closest nationally designated site is the Ummerantarry Bog National Heritage Area (NHA), which is located c.250m west of the site boundary. The Glenamoy Bog Complex Special Area of Conservation (SAC) is located c.1.4km north of the site boundary. The Bellacorick Bog Complex SAC is located c.2.3km south of the site boundary. The potential for the proposed development to have any impact on designated sites will be assessed as part of the EIA process.

In terms of the surrounding road network the site is bound by a number of local roads and local road laneways. The nearest secondary road to the site is the R315 located c.2.3km east of the site as it joins Ballycastle to Crossmolina. The N59 National Primary Road is situated 14.8km south of the site.

## The Proposed Development

The proposed development of Keerglen Wind Farm at this stage is likely to comprise of approximately 10 wind turbines with a maximum overall blade tip height of 185m. The proposed development is also likely to consist of the following[1] :

- 1no. permanent Met Mast;
- 1no. 38kV electrical substation;
- Hardstanding's/crane pads at each turbine;
- Underground cabling required to connect the on-site substation to each of the wind turbines;
- Connection to the national electricity grid at the existing 38/110kV Tawnaghmore substation in the townland of Tawnaghmore Upper, Co. Mayo;
- Upgrading of existing site access tracks and construction of new site access tracks as required;
- A temporary site compound and all associated works;
- All associated infrastructure and site development works.

A site location plan is included at Figure 1, while the current indicative wind farm layout is included at Figure 2.

## Grid Connection

Electricity energy generated from Keerglen Wind Farm will be connected to the national electricity grid via a 38kV underground cable from a proposed electrical substation at the Wind Farm to the existing 38kV/110kV substation at Tawnaghmore in the townland of Tawnaghmore Upper, Co. Mayo. It is proposed that the majority of the grid connection infrastructure will be installed underground within the body of the public road network along the route. In some isolated instances, in order to traverse water crossings along the grid route it may be necessary to utilise overhead lines, spanning a limited distance over the water crossing before re-establishing the cabling underground and continuing along the route to the Tawnaghmore substation.

The grid connection route is circa 19.3km in length between the proposed Keerglen Wind Farm and Tawnaghmore substation as shown in Figure 3.

[1] This is a provisional development description and is subject to amendments prior to submission of the application

# 3. Need for the Proposed Development

## Legislative and Policy Context

On the 10th December 2015, the Irish Government signed into law, the Climate Action and Low Carbon Development Act. This provided for the establishment of a national framework to facilitate a low carbon, climate resilient, and environmentally sustainable economy by 2050. The Act serves as a primary piece of legislation and was enacted in response to Ireland's legally binding commitments set out in the Paris Agreement.

The Paris Agreement is a universal, legally binding global climate change agreement. 195 countries signed the agreement which set out a global framework to mitigate against dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C. It also aims to strengthen countries' ability to deal with the impacts of climate change and to support them in their efforts.

The Intergovernmental Panel on Climate Change (IPCC), a scientific body that provide clear and up to date views of the current state of scientific knowledge relevant to climate change, have made clear that the window for action on climate change is rapidly closing highlighting that each of the last three decades has been successively warmer at the Earth's surface than any preceding decade since 1850.

The IPCC report that continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system and to limit Climate change, substantial and sustained reductions of greenhouse gas emissions will be required. The energy supply sector is the largest contributor to global greenhouse gas emissions. As such, the IPCC have recommended that renewable energy sources (including wind energy) will have to grow from 30% of global electricity to 80% by 2050 in order to meet the commitments contained within the Paris Agreement.

In a European context, the EU Renewable Energy Directive (2009/28/EC) was published in April 2009 and sought the promotion of the use of energy from renewable sources. The Directive set a mandatory national target for the overall share of energy from renewable sources for each Member State. This package was designed to achieve the EU's overall 20:20:20 environmental target, consisting of a 20% reduction in greenhouse gases, a 20% share of renewable energy in the EU's total energy consumption and a 20% increase in energy efficiency by 2020.

In December 2018, a revised EU Renewable Energy Directive 2018/2001/EU (RED II) came into force and shall be transposed by June 2021. This new regulatory framework includes a binding renewable energy target of 32% for the EU by 2030. It further includes a review clause whereby an upward revision of this target will be considered by 2023.

In August 2019 the Climate Action Plan (CAP) was published by the Irish Government. The CAP recognises the need for decisive action to tackle climate disruption. It sets out an ambitious course of action to address the impacts which greenhouse gases and climate change may have on Ireland's environment, society, economic and natural resources. The CAP clearly recognises that Ireland must significantly step up its commitments to tackle climate disruption. One of the key targets set out in the CAP is to increase electricity from renewable sources to 80% by 2030.

In June 2020, a programme for government was agreed by the collation of Fine Gael, Fianna Fail and the Green Party. Outlined within the programme is a commitment to deliver a 'Green New Deal' which shall deliver a reduction in overall greenhouse gas emissions by on average 7%per annum between 2021 to 2030, with the aim of achieving net zero by 2050. The programme further outlines the governments ambition to pursue a rapid decarbonisation agenda through the delivery of renewable electricity.

The Climate Action Plan 2021 was published on the 4th of November 2021 and sets out a detailed sectoral roadmap designed to deliver a 51% reduction in greenhouse gas (GHG) emissions by 2030. This doubles the ambition of the 2019 Climate Action Plan, and will require significant reductions from all sectors, recognising that the abatement potential will vary by sector.

In order to achieve these goals, the target for renewables on the national grid has been increased from 70% by 2030 to up to 80%. This will include an increased target of up to 8 Gigawatts of onshore wind energy. Target 112 of the 2021 Climate Action Plan relates to this proposed development, notably "to develop the onshore electricity grid to support renewable energy targets".

In this context, new renewable wind energy developments are of the utmost importance to facilitate Ireland's transition toward carbon neutrality. Ireland is a world leader when it comes to incorporating large amounts of wind-generated energy onto the electricity network, widely regarded as the main contributor to facilitating Ireland's climate change and energy supply obligations. Proposed developments like Keerglen Wind Farm and other wind energy developments will further contribute towards this national effort and will play a critical role in addressing Ireland's climate change and renewable energy targets and obligations.

# 4. Environmental Impact Assessment Report Methodology

## Environmental Impact Assessment Report Structure

The EIAR will be prepared in compliance with the provisions set out in the revised EIA Directive 2014/52/EU (Revised Directive) which was transposed into Irish legislation in September 2018. The draft EPA guidelines on the information to be contained in environmental impact assessment reports, dated August 2017 will also be used as a key point of reference in the compilation of the EIAR.

The Revised Directive and EPA guidance document describes the minimum information that an EIAR is to contain:

*a) a description of the project comprising information on the site, design, size and other relevant features of the project;*

*b) a description of the likely significant effects of the project on the environment;*

*c) a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;*

*d) a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;*

*e) a non-technical summary of the information referred to in points (a) to (d); and*

*f) any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.*

The format of the EIAR will be designed to ensure that standard methods are used to ensure that all of the information set out above is captured and clearly described in each section of the EIAR. Each specialist environmental topic will generally assessed and described in terms of:

- Introduction;
- Statement of competence;
- Site/Development Description;
- Methodology;
- Potential Impacts (associated with the proposed development);
- Mitigation and Monitoring Measures (for any identified impacts);
- Residual Impacts
- Conclusions

## Proposed Environmental Impact Assessment Report Topics

It is proposed that the following topics be covered as part of the EIAR for Knockroe Wind Farm:

| Table 1.1 EIAR Topics | |
|---|---|
| **Subject** | **Chapter** |
| Alternatives, Scoping and Consultation | 2 |
| Description of development | 3 |
| Policy and legislation | 4 |
| Biodiversity - Ornithology | 5 |
| Biodiversity – Terrestrial and Aquatic Ecology | 6 |
| Soils, Geology, Hydrogeology and Hydrology | 7 |
| Material Assets – Aviation, Telecommunications and Electromagnetic Interference | 8 |
| Landscape and Visual | 9 |
| Shadow Flicker | 10 |
| Noise | 11 |
| Archaeology and Cultural Heritage | 12 |
| Transport, Traffic & Access | 13 |
| Population and Human Health | 14 |
| Air quality and Climate | 15 |
| Interactions of the Foregoing | 16 |

## Description of Likely Significant Effects and Impacts

As stated in the Draft 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports' (EPA, 2017), an assessment of the likely impacts of a proposed development is a statutory requirement of the EIA process. The statutory criteria for the presentation of the characteristics of potential impacts requires that potential significant impacts are described with reference to the extent, magnitude, complexity, probability, duration, frequency, reversibility and trans frontier nature (if applicable) of the impact.

Table 1.2 below, presents a summary of impacts as published in the EPA guidelines. Standard definitions are provided which permit the evaluation and classification of the quality, significance, duration and type of impacts associated with a proposed development on the receiving environment. The use of pre-existing standardised terms for the classification of impacts ensures that the EIA employs a systematic approach, which can be replicated across all disciplines covered in the EIAR. The consistent application of terminology throughout the EIAR facilitates the assessment of the proposed development on the receiving environment.

| Table 1.2 Impact Classification Terminology (EPA, 2017) | | |
|---|---|---|
| Impact Characteristic | Term | Description |
| Quality | Positive | A change which improves the quality of the environment |
| | Neutral | No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error |
| | Negative | A change which reduces the quality of the environment |
| | | |
| Significance | Imperceptible | An effect capable of measurement but without significant consequences |
| | Not Significant | An effect which causes noticeable changes in the character of the environment but without significant consequences |
| | Slight | An effect which causes noticeable changes in the character of the environment without affecting its sensitivities |
| | Moderate | An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends |
| | Significant | An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment |
| | Very Significant | An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment |
| | Profound | An effect which obliterates sensitive characteristics |
| | | |
| Extent and Context | Extent | Describe the size of the area, number of sites and the proportion of a population affected by an effect |
| | Context | Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions |
| | | |
| Probability | Likely | Effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented |
| | Unlikely | Effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented |

| | | |
|---|---|---|
| Duration and Frequency | Momentary | Effects lasting from seconds to minutes |
| | Brief | Effects lasting less than a day |
| | Temporary | Effects lasting less than a year |
| | Short-term | Effects lasting one to seven years |
| | Medium-term | Effects lasting seven to fifteen years |
| | Long-term | Effects lasting fifteen to sixty years |
| | Permanent | Effect lasting over sixty years |
| | Reversible | Effects that can be undone, for example through remediation or restoration |
| | Frequency | Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually) |
| | | |
| Type | Indirect | 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 |
| | Cumulative | The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects |
| | 'Do Nothing' | The environment as it would be in the future should the subject project not be carried out |
| | Worst Case | The effects arising from a project in the case where mitigation measures substantially fail |
| | Indeterminable | When the full consequences of a change in the environment cannot be described |
| | Irreversible | When the character, distinctiveness, diversity, or reproductive capacity of an environment is permanently lost |
| | Residual | Degree of environmental change that will occur after the proposed mitigation measures have taken effect |
| | Synergistic | Where the resultant effect is of greater significance than the sum of its constituents |

Each impact is described in terms of its quality, significance, extent, duration and frequency and type, where possible. A 'Do-Nothing' impact will also be predicted in respect of each environmental theme in the EIAR. Residual impacts will also be presented following any impact for which mitigation measures are prescribed. The remaining impact types will be presented as required or where applicable throughout the EIAR. Any potential interactions between the various aspects of the environment assessed throughout the

EIAR will be presented in the 'Interactions of the Foregoing' chapter.

## Environmental Impact Assessment Report Volumes

The EIAR shall comprise five volumes and will be accompanied by a Non-Technical Summary. The five volumes are as follows:

**Table 1.3 EIAR Volumes**

| Volume | Content |
|---|---|
| Volume 1 | EIAR Non-Technical Summary |
| Volume 2 | EIAR Main Text |
| Volume 3 | EIAR Figures |
| Volume 4 | EIAR Appendices |
| Volume 5 | EIAR Landscape Figures |

Volume 1 of the EIAR will contain a Non-Technical Summary, which will give a brief non-specialist outline of the project. Volume 2 will contain the main text of the EIAR. Volume 3 will contain the figures associated with the various Chapters in Volume 2 and Volume 5 will contains landscape photomontages associated with the Landscape and Visual Assessment Chapter. The appendices will be contained in Volume 4.

## Environmental Impact Assessment Report Team

ABO Wind are managing and coordinating the production of the EIAR and have engaged a team of specialist and competent consultants to carryout baseline survey work and conduct impact statements. Table 1.4 provides a summary of the professional team and their area of contribution.

**Table 1.4 Summary of Professional Team**

| Consultant | Contribution | Chapter |
|---|---|---|
| ABO Wind Ireland LTD | Project Management<br>Description of the development<br>Alternatives, scoping and consultation<br>Policy and Legislation<br>Interactions of the foregoing | 1, 2, 3, 4 and 17 |
| BES | Biodiversity – Ornithology | 5 |
| Ecology Ireland | Biodiversity - Terrestrial ecology | 6 |
| Hydro Environmental Systems | Soils, Geology, hydrogeology and hydrology | 7 |
| AI Bridges | Material Assets – Telecoms and Aviation | 8 |
| Macroworks | Landscape and Visual Assessment | 9 |

| Table 1.4 Summary of Professional Team | | |
|---|---|---|
| **Consultant** | **Contribution** | **Chapter** |
| ABO Wind Ireland LTD | Shadow Flicker | 10 |
| Irwin Carr | Noise Assessment | 11 |
| Dermot Neilis | Archaeology and Cultural Heritage | 12 |
| Roughan & O'Donovan | Transport and traffic assessment | 13 |
| Arcus Consulting Ltd | Population and Human Health | 14 |
| AWN Consulting Ltd. | Air Quality and Climate | 15 |
| Purser Talton | Forestry | 16 |

# 5. Consultation

## Scoping Consultation

EIA scoping seeks to facilitate a process of consultation with Statutory consultees, inviting them to identify any potential requirements, impacts or considerations that should be included during the preparation of the EIAR.

Accordingly, this Scoping Report is provided to all relevant Statutory consultees for their consideration and comment with regard to the proposed development of Keerglen Wind Farm.

Additional consultees can be added throughout the preparation of the EIAR and through discussions with the competent authority and statutory consultees as necessary.

## Public Consultation

ABO Wind is committed to community engagement, which recognises the right of residents to have a meaningful role in developments that affect their community. A Community Liaison Officer (CLO) has been appointed for the Keerglen Wind Farm Project and has already commenced engagement with the local community. The purpose of the CLO is to introduce the project to the local community, engage and communicate with the local community in a timely and appropriate manner.

The CLO will share information and project progress updates with the local community as and when it is relevant to do so. Feedback and information received throughout the consultation process will be considered and is used to inform the design process.

Following initial feasibility work and once it was established that the project could proceed to the planning stage, the community engagement plan was developed. This plan set out the steps that would be taken in order to ensure that there was an open, transparent and two-way consultation process in place with the community from an early stage in the project.

# 6. Natura Impact Statement

Keerglen Wind Farm will be subject to the Appropriate Assessment (AA) screening process. The AA screening and, if required, a Natura Impact Statement will be prepared in accordance with the European Commission guidance document Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2001) and the Department of the Environment's Guidance on the Appropriate Assessment of Plans and Projects in Ireland (December 2009, amended February 2010).