Ballinagree Wind farm

COILLTE
GROW · TRANSFORM · SUSTAIN

Brookfield

NEWSLETTER 2 WINTER 2019

Image: Castlepook Wind Farm

We would like to start the layout design process for the proposed Ballinagree Wind Farm project shortly. The design process is lengthy and iterative, with inputs from environmental and engineering studies throughout the process. The project team will work at length to design a project which incorporates local community feedback and which will help to deliver Ireland's 2030 energy targets in the most efficient way possible.

The project team have been talking and listening to local residents within 3km of the site since mid 2019 and the aim of this second project newsletter is to share up to date project information and invite further conversations.

Our wish is to increase inclusive engagement with the local community throughout the lifetime of this proposed project and your collaboration on what a future Ballinagree Wind Farm project could look like is very much encouraged.

Project Milestones

Summer 2017	General ecological studies began in the wider study area.
Winter 2017	Initial landowner discussions began in the area.
Summer 2019	Engagement begins with the local community.
Autumn 2019	Local landowner discussion concluded.
Autumn 2019	Meteorological wind measuring mast scoping studies progress.
Winter 2019	Meteorological wind measuring mast erection.
Winter 2019	Environmental impact assessment project team appointed.
Winter 2019	Detailed environmental and engineering studies begin.
Spring 2020	Site layout iteration 1.
Spring 2020	Grid route and turbine delivery route assessment progressed.
Spring 2020	Site investigations continue.
Spring 2020	Site layout iteration 2.
Summer 2020	Site layout iteration 3.
Autumn 2020	Planning application amalgamation and reviews.
Winter 2020	Validated planning application submitted to relevant planning authority.

HOW WIND FARM DESIGN IS FORMULATED

Wind farm design is governed by a series of guidelines around set back distances, noise, visual and environmental constraints amongst others. The proposed Ballinagree Wind Farm project will be designed based on the most up to date iteration of the guidelines for Wind Energy. This best in class, conservative approach seeks to future proof the project for any new guidelines which may issue. Lengthy studies across all facets of the Environmental Impact Assessment process will deliver a final turbine layout design for the proposed Ballinagree Wind Farm project. The overall Turbine dimensions will be assessed here and the most suitable design selected for a planning submission.

SET BACK DISTANCES

From the outset, the aim is to keep as far back from residential properties as possible for any potential design. Current guidelines cite a minimum distance of 500m. We aim to design turbines to be a minimum of 750m from residential dwellings. We also consider the distance from many other features in our design process and turbines are also located at a minimum set back distance of:

- 75m from watercourses
- 200m from adjoining landowners
- 170m from public roads
- 200m from areas with environmental designation
- 350m from ESB HV transmission lines

GRID ROUTE

All over ground and underground options for connection into the national grid will be analysed. At this stage, we know that the connection is expected to run underground and we continue to consult with EirGrid regarding the connection process. Currently, a connection method to either the Ballyvouskil or Clashavoon substations is the most likely option being considered. The connection process will undergo further studies and assessment during 2020.

SITE ASSESSMENT

Many variables are taken into account when assessing the suitability of a site for wind development.

Some of these are:

- Set back for residential dwellings
- Potential visual impact
- Specific County Development Plan constraints
- Slope and ground conditions
- Peat depths
- Site access
- Grid availability
- Wind complexity

TELECOMMUNICATIONS

The design of the proposed Ballinagree Wind Farm project will be carried out so as not to interfere with existing radio, WIFI or television reception in the area. Details of the potential project layout shall be fully assessed and submitted to the planning authority for agreement prior to the commissioning of the turbines. This will follow consultation with all the relevant governing bodies.

TURBINE LAYOUT

Once site suitability is investigated, the buildable area is defined and the process of positioning turbines begins. Factors which feed into turbine location include:

- Slope – less than 16° for wind flow and less than 10°to facilitate construction
- Wind complexity and resource models
- Landscape assessment
- Avoidance of designated biodiversity areas and ancient woodland
- Options for site access
- Potential routes for connecting the power generated to the Irish grid network
- Ground condition and peat depths are considered and assessed


Lissacapla
Kilkeen
Knockgorm
Glenlogh
Horsemount North
Kilcorney
Cill Coirne
Donoure
Grinnaloo North
Carrigeannon
Grinnaloo
Beenreagh
Knockboy
Grinnaloo South
Knockarnad
Glucknauff
Bauntreagh
Horsemount South
Horsemount Mountain
Carrigduff
Brookpark
Finnanfield
Inchamay
Glentam
Duhallow Way
Seefin
Mushera
Muisiré
Musheram
Knockcraugh Mountain
Knockduff Mountain
Annagannihy
Carrigagulla
Ballynagree West
Ballynagree East
Loughatoo
Maulnahorna
Knocknagappul
Maulmore
Dooneens
Rahalisk
Ballinagree
Baile na Grai
Carrigagour
Oughdhery
Lyre
Lyravouig
Moantlugh
Coolacoosane
Bawnmore
Carrigthomas
Lacknahaghny
Burren
Carriganish
Cahernafulla
Clonavrick
Caherbarguls
Kilpatrick
Screhanard
Kilbemhert
Cooper's Rock
Mushera Mountains
Standing Stone
Stone Row
Megalithic Tomb
Fulachtai Fia
Stone Circle
Barrow
Cairn
Boulder burial
Cross slab

SHADOW FLICKER

Shadow flicker occurs at certain times of the day when the sun is very low in the sky, and where the movement of blades can periodically reduce the daylight coming from a window for example, causing the daylight to appear to flicker.

Technology now allows for a wind farm project to comply with a zero shadow flicker policy, through detailed analysis and planned curtailment of the turbines. Current legislation limits allowable shadow flicker to a maximum of 30 minutes a day or 30 hours per year. This project strives toward a zero shadow flicker policy.

NOISE

Baseline noise levels are measured at various locations in the vicinity of the buildable area. These allow us to design a project which will comply with the forthcoming Wind Energy Guidelines currently being drafted.

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

Did you know: ***The noise consultant has to discount the noise emitted by existing turbines in the area in order to establish the true back ground noise. Wind Farms are limited in the amount of noise they can emit above this lower background level.***

Within the planning process and design of any proposed wind farm, noise is examined for the entire process including construction, operation and decommissioning.

GEOTECHNICAL

A detailed assessment of soils and geology is necessary across all proposed turbine locations, proposed access routes and the proposed grid connection route. These assessments are carried out using peat probing, trial holes and auger sampling amongst other methods.

The output of these studies allows calculation of required borrow pits, their size and an earthworks calculation to assess where excavated material can be beneficially reused. All data gathered during these assessments will be used to help inform the potential final locations of all turbines and associated infrastructure.

BIRD STUDIES

Birds are included in the Biodiversity chapter of the Environmental Impact Assessment Report. Survey methods have been selected following a review of best practice guidelines, including guidance available from Scottish Natural Heritage (SNH), the National Parks and Wildlife Service (NPWS) and other environmental non-governmental organisations.

Ecology surveys focussing on birds include, but are not limited to, vantage point surveys targeting Hen Harrier and other raptors, Hen Harrier winter roost surveys, wintering wild fowl distribution surveys and general breeding transect surveys.

BAT STUDIES

Recently, Scottish Natural Heritage published updated guidance for bat survey methodology for onshore wind farms (SNH, 2019). SNH guidance has been adopted for the bat surveys associated with the proposed Ballinagree Wind Farm project. This includes an appropriate number of bat monitors positioned throughout the study area.

ENVIRONMENTAL STUDIES

Wind farm planning applications must include an Environmental Impact Assessment Report (EIAR). The aim of the report is to present a detailed study of how the proposed Ballinagree Wind Farm project may impact on the local area across a series of topics such as; biodiversity, landscape, water, population and human health. Each topic forms a standalone chapter in the EIAR.

An established protocol exists for developing an EIAR, beginning with collecting baseline data across the proposed development area. Once a final layout is confirmed, the potential impact of each turbine and the full wind farm is defined. This is reviewed across each topic of the EIAR and appropriate decisions are made surrounding amendments to design or mitigating strategies where required.

These impacts and strategies form the EIAR which is submitted to the relevant planning authority. The relevant planning authority often attaches planning conditions based on the information set out in the EIAR.

THE ENVIRONMENT

The proposed Ballinagree Wind Farm EIAR will cover a number of topics, including:

- Population and Human Health
- Biodiversity
- Land
- Soil
- Water
- Air
- Climate
- Material Assets
- Cultural Heritage
- Landscape

VISUAL ASSESSMENT

Turbines can be easily seen. As such, their placement needs to be considered from views surrounding any proposed wind farm. A visual assessment will be undertaken as part of the proposed Ballinagree Wind Farm project. Any resident who wishes to take part in this exercise will be welcomed to join in to ensure views specific to you are assessed. Once all the information is collected, we will then engage further on the proposed layout before the planning application is submitted.

Our wish for the proposed Ballinagree Wind Farm is to design this project in a different way to previous projects of this type, with a fundamental focus on inclusion and partnership with stakeholders. We have started this by listening directly to those who live closest to the proposed project. As we continue this engagement, we will also enable meaningful conversations with those living slightly further away.

To enable maximum accountability and transparency, we would very much welcome regular feedback where local individuals and groups can participate with us directly in the design of a meaningful and positive local project. We very much welcome your ideas on how we could do this.

Items we are currently focused on advancing include;

i) to meet everyone within 2 to 3 kms of the study area so that we can start a conversation about the potential development of the wind resource,
ii) to ensure that everyone who would in any way be impacted by a wind project has access to all pertinent information,
iii) to erect a wind measuring mast to make sure we can share the facts about the wind with designers, investors and the local neighbours,
iv) to undertake assessments on all potential impacts.

Contact

We welcome engagement and interaction with you on any aspect of what we are proposing to do. If you would like to chat about this project please contact us via any of the below means.

Address:
Coillte Office, Hartnetts Cross,
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Phone:
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Email:
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For more information visit:
www.coillte.ie
www.brookfield.com
www.ballinagreewindfarm.ie (Launching soon)

Meet the Team

Michael O'Connor is Coillte's project manager for the proposed Ballinagree Wind Farm project. A native of Kerry, now living in Limerick, Michael brings extensive experience in renewable energy development having worked for over fifteen years in the construction, civil engineering and renewable energy sectors.

Edwina White is Brookfield Renewable's project manager for the proposed Ballinagree Wind Farm project. A native of Cork, Edwina brings extensive experience in renewable energy development having worked in the renewable energy sector for 10 years.

John Lyons spent 40 years in Forestry and worked in Coillte since its formation leading forest engineering operations and brings a wealth of knowledge, experience and relationships to the project in his role as Community Liaison Officer.

David Eves joins the project team through Brookfield Renewable where his skills in planning and environmental management consultancy have been of huge benefit. Alongside John, Dave will undertake the role of Community Liaison Officer with the Ballinagree Wind Farm project.